The Harveian Lectures

ON

COMMON NEUROSES, OR THE NEUROTIC ELEMENT IN DISEASE AND ITS RATIONAL TREATMENT.

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LECTURE I.

GENTLEMEN,—When your President and Council did me the honour to invite me to fill for this year the post of your lecturer, I accepted with no more than the momentary hesitation that might be the natural physiological reaction of any surprise. And I did so because the reflection of a moment made it clear that the request came, not to *me* personally, so much as to one of the physicians, and therefore to one of the accredited mouthpieces, for the time being, of Guy's Hospital. To have declined such an invitation, however much private inclination so counselled, would have been to run away from an obvious duty, and to cast a slur upon an institution that deserved nothing of that sort at my hands. So I am here to-night relying on, and attempting to personify as best I may, my nursing mother; dear to me, as those other kindred and not less noble institutions where you severally have studied, and spent, it may be, the freshest years of your lives, are dear to you, my hearers. But having thus somewhat impulsively taken up what seemed to be a duty, I am free to confess that it was a case of "marry in haste and repent at leisure," for only when there was no escape did I realise that a matrimonial project of this sort was not to be "enterprised nor taken in hand lightly," and anxiously did my mind range the wide field of medicine for some subject that might prove not only instructive, but also attractive, at this somewhat somnolent evening hour. Ruskin has said in effect, in his "Sesame and Lilies," that in reading a book one should try to get at the author's meaning, rather than let him be interpreted by the light of our own thought. For the poet, the mystic, the moralist, I might allow this to be true, though I am by no means sure that it is so; for the books that have most taken hold of mankind have ever been those in which the author has dealt with subjects for which no language could be precise enough; and that hold has been gained not necessarily by beauty of language, though that has often been conspicuous; not by wealth of idea, though that may have been abounding—but chiefly, as I believe, because individual minds of the most varied type and depth of intelligence have each and all, in attempting to unravel the writer's meaning, unconsciously, it may be, seen in it their own experience, and interpreted it on these lines. Do you believe, by putting Shakespeare on any pinnacle of intellectual acquirement you may please, that any single brain ever had within its compass the half of the ideas that have been found by others in his plays? I believe that if we could piece together all the knowledge that from then till now has been supposed to have been put into his work, of his own purpose and intention, we should build up an individual who even at this advanced period of the nation's history would be a psychological impossibility. Shakespeare is Shakespeare, Milton is Milton, Browning is and will be Browning if you like, it matters not whom of the greatest writers of the past we take, each and all of them, great as they were and are, would yet be comparatively unknown to fame were it not that, in attempting to interpret them, age after age has interpreted itself through them. I question whether it could be otherwise. It is the natural resurrection that a great mind may expect. But let this pass. If what Ruskin says be true for the writers of books, it is hardly so for the audience of a lecturer on medicine, and I seemed to receive *my* mandate from quite another point of view, and from a very different source.

Those of you who have read "Life's Handicap," by Mr. Rudyard Kipling, will remember that in the preface—to my mind the most charming part of the volume—there is a dialogue between an old Indian of eighty years, Gobind the one-eyed, and the author, with reference to the art of telling tales. There are one or two passages in that preface, by-the-bye, that seem to bear upon medical authorship. For instance: "I write," says the author, "of all matters that lie within my understanding, and of many that do not. But chiefly I write of life and death, and men and women, according to the measure of my ability. Then, by the favour of God, the tales are sold, and money accrues to me that I may keep alive." But with more special reference to the work before me he asks, "'In what manner is it best to set about the task, oh chiefest of those who string pearls with their tongue!' 'How do I know?' said Gobind. 'Yet,' he thought for a little, 'how should I not know? Do thou this: tell them first of those things that *thou* hast seen and *they* have seen together. Thus will their knowledge piece out thy imperfections.'" And this is what I have ever found the readiest way to my hearers' attention. This is what I shall now attempt to do. I propose to give you a plain tale of my own experience, feeling sure that in so doing I shall appeal to similar experiences of your own, and I hope that the piecing-out process may prevent the time from being altogether lost. Thinking thus it was that I determined to deal with the subject of neurotic conditions, and here it was that I came across my first difficulty—the question of a title to these lectures. All titles and definitions bind one, and I want to present the neurotic element in disease to you as it has presented itself to me, and that presentation does not well allow of any than the most general definition. "Neurasthenia" would, I think, have been the most fitting term, but that in inviting you to listen to lectures comprehended by that name I feared to seem to limit your vision to massage and stuffing, which I have no wish to do. Included within my horizon are such diseases as asthma and angina pectoris, and indeed the subject is all too wide. The common neuroses of modern life next came to my mind, but some of my friends said that a title of that kind was rather too suggestive of a ticket for the play. So at last the heading stands as it does, and if it be somewhat vague, I at any rate feel that I have a free hand.

But modern life is, after all, my chief theme; and insistance upon it is one of the first points that I wish to make, for it is the very mainspring of my subject; or rather, I ought to say, of my idea of it. As year succeeds to year of life I become more impressed with the widely prevailing influence of the neurotic element in the production and carriage of disease. And it is my own opinion that it is largely more so than in former years. I shall not attempt to prove this, for I feel confident that figures could be made to do service either way according to the bias of the manipulator. I therefore simply give it as my opinion, worth no more, but worth no less, than that of any other individual who has had an equal opportunity of observing. For let me remind you, the conclusion that I had come to has determined the subject of these lectures; it was not formed after I had settled that question. If I look through my notes of cases that I have seen there is no group so large as that of the neurotic in one form or another, and I really do not think I have exaggerated this feature. I believe that insanity is on the increase; but I refuse to be confined, in speaking of mental disease, to those grosser forms that require to be committed to the hospitals set apart for such cases. Incidentally I may say too that I believe that the grit of the English constitution has lessened in robustness; and if the question—Why, then, is the average duration of life longer?—seems at first all too pertinent for the maintenance of that contention, a very little reflection will convince anyone that no great weight attaches to it; for in both cases—physical and mental death to bring both cases at once into the same line—it is more than probable that the last extremity is averted by our greater care of life at the present day, and that the average is lengthened out by the large prevention of preventable diseases. Yet men and women may drag along more self conscious, more oppressed and weighed down by trivial ailment; less ready to step out with the spontaneity and joyous liberty and power of healthy life, so that if one man might say that to-day there is less of capital punishment there are ten men who would make answer: Even so! but there is more of penal servitude and of the treadmill.

I remember five-and-twenty years ago, when first enterin

the medical profession, that some one, I think the late Sir Thomas Watson, had given expression in public to the opinion that disease had changed its type. I was surprised to see, even at that early date of my career, how much discussion that opinion excited, and even more surprised when, after a time, it was practically recanted. I thought then, and I think still, that unless the world is standing still, disease *must* change its type, that it has changed its type, and is changing it. Some of you at any rate will remember that the discussion had already turned around the former treatment of pneumonia by bleeding and its then and present management without. And, surely, the argument in favour of a change of type on that ground was not wanting in strength. Still, I would maintain that it was not the strongest upon which the contention could be supported, for it was quite open for those who had years enough to say that the pneumonia of a former generation was in all essential features the pneumonia as we know it now, and that was indeed the line taken, and many supposed successfully so. But a quarter of a century has gone by, and almost within that time the doctrine of evolution has come into existence and has grown into robust manhood. In those days change of type conjured up the idea of kangaroo jumps from the disease of one day to that of some successive one. We can understand now, if we could not at first sight then, that no such demonstration is possible, because it is out of the natural order of things. But the absence of gross changes within the span of a century or two does not touch the assertion that disease has changed and is changing. The changes that occur are subtle and gradual—as gradual as those by which man himself must be changing, because this earth is changing, and unless he accommodates himself to his altering circumstances the man of to-day will have to make way for some other being more pliable than he. I see no escape from the absolute certainty of the conclusion based on this *a priori* consideration that disease is changing, and changing, too, in all sorts of directions in correspondence with the manifold modifying circumstances to which it is subjected. I need hardly give any illustrations of this, they are so abounding; but to show the intricacy of the case let me insist on this maxim—"No man liveth to himself, and no man dieth to himself." Apply the principle, for it is a principle, to the exanthemata; and to what we are doing in all directions both preventive and curative at the present day. It is impossible, I take it, to do away with one of these scourges or to render its reaction on the human body less severe, without the change or changes reacting to a wide extent, and probably far wider than we have any idea of, upon a number of other processes of disease which they involve in their unbridled turmoil. For instance—and there could not be a better one considering my subject,—there is many and many a home now bewailing the ravages of disease in one or other of its members relighted, or may be *started*, by quite another disease,—viz., that interesting pest influenza! I suppose there is not one of us who does not see even now almost every day some case or other that dates its initiation from that disease of now wellnigh two years ago. I think it would be difficult to say in how many ways that disease has attacked the human organism and laid it open to attack, or in how many directions its absolute extirpation would better the future of the race. I take it, therefore, that disease is changing its type not only in accordance with the changing circumstances of man and his surroundings, but also in accordance with the modifications that are produced in it in its various phases, as each or any of them are made to submit to the assaults of advancing knowledge.

However this may be, my chief point now is that man himself is changing, and if so, so must his diseases be, and I believe him to be changing chiefly as regards his nervous centres, and that these are becoming more prone to fatigue, more easily the prey of morbid sensations, of morbid thoughts, of morbid action, and so on. But I am not sure that this is so, at any rate equally so, in all the strata of society. I do not think that it is, and my own experience goes strongly to show that the stress of living tells largely against the middle classes of our world. "Liberté, égalité, fraternité" is the prevailing cry of the day; we are all men and brothers, and a savage is as good as the most cultivated man. This may be good sociology or political economy, but it is not sound physiology. There can be nothing more sure in physiology than this, that, as we go upwards in the scale of creation, so the nervous system becomes more sensitive to pain and to disturbing sensations of all sorts. There can be no doubt that operations can be performed on the lower animals without any of the precautions that are taken in the case of ourselves, and that the results are astonishingly good all the same. I think there can also be no doubt—one has seen illustrations of it so often in the out-patient room and elsewhere—that the differences that are seen in this respect between the lower animals and man are seen in a similar, if less marked, way between the lower and upper grades of society. Who does not remember to have seen, and even often seen, patients in the hospital out-patient room, desperately ill and even within a very few hours of death, yet hardly allowing that there can be anything serious the matter? I remember, too, to have seen more than once a man come to the out-patient room for some ailment confessing to nothing else than that for which he had applied, and yet on being overhauled he is found to be the unhappy possessor of some huge ulcer of the leg that would certainly have quite incapacitated anyone in the upper walks of life, but which he called "nothing." It is said that the working man cannot afford to lie up, and therefore he does not call attention to things that are chiefly an inconvenience. But this is no adequate explanation; to my mind, this would not explain the power he possesses of working under such very adverse circumstances. I feel sure that the reason is none such as this, but that it springs from the fact that the working man is generally far less sensitive to depressing conditions than those above him in the social scale; his nervous system is far less sensitive. We see the same thing in the difference in the reaction to drugs that may be seen at the two levels. Give belladonna and nux vomica with an equally free hand to the hospital patient and to the delicate lady, and we soon see the difference. It seems obvious that the one who has had to rough it has become deadened to trivial shocks of all kinds; while the other, pampered in the lap of luxury, has become cultivated into such a state of nervous erythism that the least disturbance upsets her. But more than this. Not only does the neurotic state evolve more, as I think, in one stratum of society than in others—it has its lines of special development in some occupations more than others. I wish there were time to develop this subject, for it strikes me as an important one. I have in mind the neurotic tendency as it shows itself in the clergy, in those whose occupation is to deal in stocks, in those whose occupation is our own. But interesting as this line of observation is, I must confine myself to saying that, for the most part, the clerical neurotic is irritating to others rather than dangerous to himself; the dealing in stocks seems to me to be liable to produce a state of nervous instability, such as would seem to threaten an ending in insanity of some form or other, of the frequency of which I should like to hear something from those who by their practice are more familiar with the professions as they are found in asylums than I am; and of the medical neurotic—well, I am not bound to say anything of my own cloth, so I shall leave him to your kindly judgment, more particularly as he is generally youthful and inexperienced. It is my conviction, then, forced upon me by the experience of now many years, that the maladies which owe their origin to a faulty action of the nervous system are of more frequent occurrence in practice than are even phthisis, heart disease, Bright's disease, or organic hepatic disease, though these are in no small number.

Now, as time goes on and the subject develops some will certainly raise the criticism that the seeing this element in disease largely depends upon the standpoint or the bias of the individual observer, and I shall admit this risk, but to that I shall address myself as I take up particular subjects, more particularly the treatment of the neurotic affections of the stomach. To these particular maladies we must now proceed, and I propose to divide the subject into the following groups: The common neurotic conditions which may be said to be essentially central in their whole course; those that are pulmonary; those that are cardiac and circulatory; and those that are abdominal, concerning themselves with the stomach and bowel and liver and kidney. Of those that are central it is difficult, if not impossible, to give any adequate clinical description, because concerning themselves as they do so much with subjective sensations, they are as various as the variable mental conditions of the individuals in whom they occur. But nevertheless there are certain common methods of disturbance of the healthy cerebral action; and first of these I will mention the curious

dread that some neurotics have of going into society or into any crowded place. Ladies will come and tell you frequently that they cannot go to church because they are afraid that they will faint or that an attack of what they have generally agreed to call the fidgets will come on, and that they will have to go out. I have known this dread to take possession of men, but in them it is perhaps more often a modification of the same thing—viz., a dread or at first a disinclination to go out and see their friends, which, if it be indulged in, becomes before long an "all-overishness" at going into society of any kind that quickly converts a man into a recluse. In women there is another common phase of the same malady—viz., where the subject describes herself as turning scarlet all over. Some inborn sensation starts what is usually described as some sudden rush of blood upwards, and thus they usually describe themselves as turning colour, although I do not think that they often do. The hot sensation is succeeded by a copious perspiration, and of this sweating there can be no doubt, for I have been repeatedly told by the subjects of such attacks that their underclothing becomes quite wet.

This is a short description, but I think it embraces all the essentials of a large, very large group of cases. Now, how are they usually treated? How are they to be treated? The general plan of dealing with them is, I think, to call them hysterical, and to administer assafœtida and valerianate of ammonia. I have nothing to say against these excellent remedies; they are very good in their way, and I am not prepared to say they are not the best in these cases; but there is a right way and a wrong way of administering even proper remedies, and to offer either as a *cure*, is not the proper way of dealing with any such case as I have depicted. If we should have to do with a frightened horse that will not pass a certain spot, we do not send him to the veterinary surgeon that a bolus may be administered, but he is walked up and down before the object that disturbs him until his self-possession is regained, and he finds that what startled him is, after all, nothing to be alarmed at. So must our patients treat themselves. Their nervous systems revert to a similar state of unreason as that seen in the startled animal, and the only way to cure them is to restore their confidence in themselves. Something may be done by good nerve tonics, sometimes by sedatives judiciously given, to help them to help themselves, but clearly the only way by which they will overcome their weakness is by becoming oblivious to the conditions that are the cause of the self-consciousness and distrust. For instance, in the common dread of doing something foolish or coming over ill in church or society, the difficulty is usually surmounted by staying away, and I say that to deal with it thus is to encourage the malady. The true method is to go and do all that comes to the hand to do, and thus to learn again, that what had been thought impossible, without a catastrophe, is accomplished without any ill result. It is constantly impressed upon us that all this has been done, and without avail; that the patient has struggled against the feeling and has been unable to overcome it, and this is supposed to be an argument against the advice that has been given. But it is nothing of the sort. There are hundreds of neurotics who fight and struggle and try not to give in, who are really consuming themselves in the bearing, and who are all the time by so doing kindling the flame of their neurosis by encouraging their self-consciousness. Surely this was so in a young lady I saw the other day, whose mother remarked to me that her daughter was the most absolutely enduring creature that was ever known. This lady little knew my inward response; that she who goes about the house with sweet resignation set upon her face is ofttimes one of the most incorrigible of neurotics. A neurosis is best treated by the cold shade of neglect. Moreover, to struggle against a feeling you cannot help, and to call yourself hard names for being overcome by a distressing feeling that was none of your own invitation, is equivalent to clogging the frightened horse, and the result in both cases is the same—the state of panic is made worse. The best way of meeting these ailments is to allow to the full the misery that they cause to the individual, but in doing so to insist (1) that they are always transitory, (2) that they are purely subjective and not perceptible to others, and (3) that they never do any real harm or mean any organic disease. As I have said, unconcern at their approach and during their course is the certain cure; but, alas! I must add, even so, that the remedy is easy to preach but difficult to put into practice. Remember, though, that this difficulty does not alter the certainty of the facts.

Next there comes a large group of cases where the morbid sensation is chiefly confined to the head; there is either headache or a clawing inside the head. Some will say their brains feel as if their top storeys were converted into wool; others, again, suffer from what, according to their own descriptions, appears to be a species of mild explosion sensation within the skull; and then there is the very large group of cases that come for noises in the ears. It is perhaps seldom that one sees a typical case of Ménière's disease, but regarding Ménière's description of auditory vertigo, as I do, as a *type*, in the same way as I shall by-and-bye insist that Raynaud's disease and exophthalmic goitre are also of a large group of symptoms, the tinnitus aurium and deafness form the very commonest of the neurotic ailments which come before the physician in his daily work. But someone will perhaps say, Why call this a neurosis? It is a definite affection due to irritative or destructive lesion in the semicircular canals. So it may be, but I am none the less very much concerned to insist that the disease as I know it is very seldom, indeed, if at all, a simply local disease, and it is nearly always found in those of markedly neurotic constitution, either of themselves, or more often, I think, as regards their family history. For instance, this case comes before me: A lady of my acquaintance suffered for years from noises in her ears, which could only feebly be kept in the background of her mental activity by constantly keeping a musical box going. What was her family history? Her brother was in an asylum for some years before his death; another member of the family suffered from harmless delusions, and passed into a state of senile imbecility out of proportion to his years. And this does not tell the half of the neurotic strain in that family, for beyond the gross departures such as these there runs through all the members an indescribable eccentricity such as cannot be put on paper, but which is nevertheless very real and obvious to those with whom they come in contact. Here is another case of a gentleman of sixty-three years who was under Sir William Gull many years "for the nerves of his head." He says that his mother suffered greatly from "bile," and was always under the doctor; a history that I shall by-and-bye contend shows a vice of the nervous system! He has had good health, but every now and again, with complete freedom between the paroxysms, there will come a roaring in his head which he describes as a mill stream going inside him, and he staggers about as if he had been drinking, and he will also occasionally see double.

In another case you only want to look at the man to see that he is liable to nerve-storms of all sorts, for his head goes almost to a point at the forehead, and his whole history is that of a highly neurotic man. He is all right away from business, which is a large one, and in which he has much to do with figures. He had been to an authority, who told him he had a weak heart, which nearly finished him with fright. He appears to have rebounded in consequence into the chair of an ear doctor, who told him he had Ménière's disease, and I suppose that, finding himself between the devil and the deep sea, he came to me for consolation, which I gave him. Once more, as showing that these cases form a large group and have relations with other neurotic states, I note the case of a man of fifty-four, in whom in association with the noises in the head and ears there come on from time to time attacks of faintness, in which he flushes up, his veins stand out, he gets a little giddy, and he breaks out into a profuse perspiration, his account being quite like that of the woman so much more commonly seen with flushings to whom I have already alluded. The attacks in this man, although one cannot but think from his whole demeanour that they are subjective entirely, are nevertheless clearly very real, for they compel him to sit down wherever he may be until they have passed off. Of twenty of these cases taken from my note-books one only had evidence of local ear disease, and all were people whom I should call very nervous. I may also note in favour of a central origin that these symptoms certainly in the large majority of cases are paroxysmal in their occurrence at the onset, and may remain more or less so to the end, for many people will tell you that they get better or worse according as their general health is better; but the tinnitus very generally tends to become confirmed into persistency as years go on. Again, as pointing in the same way, according to my experience there are two classes of cases, the one that makes no more than an inconvenience of the malady; and in these, although it is a serious and, indeed, a dis-

tressing affection, it does no harm; in the other it is ever present, is nursed, so to speak, and brooded over, and day by day a greater degree of mental wretchedness is produced, until, if not actually insane, the sufferer becomes very much of a mental wreck.

This leads me on to a somewhat different condition, but as regards results a closely allied one—I mean insomnia. Now what is sleeplessness? I have in former years described it as a bad habit of the nervous system, and so it is in most cases; but it is also more, for if we go into the history of this trouble we almost always find that it can be traced back to parental tendencies in the same direction, while it is also one of the commonest forms of the manifestation of nervous fatigue and breakdown. There is therefore ample evidence for regarding it as a vice of the nervous centres. Yet I hold that it is a vice that is too often detrimental to the patient simply because of an inability to rise above it. It is very much with the sleepless as it is with the subjects of Ménière's disease; for if we look at the subject from a physiological point of view there is nothing so very harmful in sleeplessness. There are plenty of people going about who sleep no more than three or four hours; there are many more who are the lightest of sleepers, which means that they wake many times in the course of the night; and those of either class would not dream of considering themselves out of health. They go about and take little heed of what is really not the normal state of things. They take their sleep in snatches, like the heart, and do fairly well upon it. But as soon as we get it on the brain that the sleeplessness is a serious matter, that it indicates serious nervous weakness, and that it will end sooner or later in insanity, then it becomes a very serious thing indeed. Then it is that it does become a dread, and every returning night becomes a hot iron entering into the soul, for it is met with the closed teeth of an expectation that will certainly be fulfilled. It is thus I think that the patient tosses about and arises in the morning in such a dilapidated condition. "I am sleepless, I am sleepless" is the night-long refrain; whereas a dominant thought of this kind should be neutralised by its antagonistic one: "This is very unpleasant, but what does it matter?"

I pass naturally from such subjects as these to others that are still more purely of mental origin. There are many of these that give much anxiety to individuals, and for which they come to the physician to be reassured. A large number come because they are losing their memory, or think they are; others come because, comparing themselves with some others of their acquaintance, they think they cannot do such and such things as well as their wont was, or as well as they. Others, again, there are who have time-honoured fits of the blues, and very curious is the persistency of the idea with which the patient is ofttimes possessed. One of the more recent cases that have come before me was a young man who, although he had been assured that there was nothing the matter with him—that is to say, no organic disease,—and although he professed to have a thorough belief in his doctor, nevertheless came for another opinion, because he was certain that there *must* be something the matter because he perspired so much. I talked to him for some time and carefully went over all his organs, just to satisfy him that everything had been done to make certain that there was no disease. But I feel sure that I made little real impression upon his mental condition, for it is the habit of these patients to be a little more cheerful while they are talking to the doctor, but to speedily relapse as soon as the sound of his voice has passed away. Of other common complaints I have jotted down these: headache, pains in the back of the head and dreadful depression at the top of the head, a sensation of going out of one's mind, inability to concentrate thought, fits of absent-mindedness, clouds of depression and sleeplessness. Pins and needles and numbness claim another large group of victims who die daily in imagination of paralysis; others come because their hands shake, others for fainting fits, others for a feeble circulation. Another group is formed by people who come and tell you that they are hardly ever free from pain. There is an instinctive dislike in most of us, when a person complains of pain, to say there is no disease; and it is necessary in such cases to be very careful that we do not let an idea run away with us. Nevertheless, I think that it must be admitted that there are a fair number of people who are always in pain, and who yet have no disease. I have several times had people make this complaint to me, and I have come to the conclusion that there are some people in whom the ordinary processes of life are conducted with pain, and yet without organic disease. A large number of such seem to affect uterine disease, and find their way into the hands of the gynæcologist; some as having ovaries, others as having flexions, others as having a general lassitude and dull dragging backache, and other ill-defined pains about the pelvis and lower extremities. Another large group affect spines, and lie on their backs for months, and lead their friends and their doctor a fine dance, unless some dire necessity steps in, and, by taking them out of themselves, changes the current of their lives. It may seem hard to say that such people must learn to bear their pain, but so it is. Herein is one of the mysteries of pain—there is no standard by which to gauge it. In the abstract it is part of the common lot of man, but there is nothing that is less common between you and me. What is agony to you may be a mere fleabite to me; and it is obvious, I think, as indeed I have already indicated, that in its higher refinements it is a product or development that marches with the march of the keen nervous susceptibilities of modern life. I cannot believe that pain plays upon the same number of strings in the lower animals as it does in man; I cannot believe that pain conveys the same sense of suffering to the savages of equatorial Africa as it does to our country labourer; I doubt it pain is the same to the country labourer as it is to the working-class toilers in our large industrial centres; I cannot believe it is the same to these as it is to the higher grades of society. And if there are these differences, as I think there must be, so there must be differences between individuals, and inasmuch as I can only judge of your suffering under given conditions by what I have felt myself under such circumstances as happen to have been most similar, we have no common ground, or next to none, and we must therefore deal with pain in the main upon Nature's great principle of strength sufficient for the day. We talk of *treating* pain; but if we think about it, how large a part of physical pain, and all the greater pain of mental anguish, has to be borne. And if this indeed be Nature's law, as it appears to be, that the larger part by far of the sum of human pain is thus without remedy, there can be no unkindness in anyone if he should say that the best cure for many a lesser pain is to learn to bear it. And so it is. The very effort is a tonic with which no drug in the pharmacopœia can, all round, compare; while every potion is a submission to circumstances which, when the next call comes, will necessitate a stronger dose. "The weaker a body is the more it commands; the stronger it is, the more it obeys." I am afraid I am hardly making my meaning clear, but it is this: that pain is, after all, only one form of morbid sensation. I am not sure that it can rightly be called morbid in many cases seeing that it is so often but the fag-end of pleasure. Why, then, should we fly at once to deaden pain by opiates and sedatives any more than we should apply to the same source to relieve some other unusual sensation, such as, for instance, some slight itching of the skin? An intolerable itching we should all agree to try to stop, because it is out of the common, and when controlled one may hope, or even confidently expect, that it will not reappear; but a slight irritation of the skin is so much the lot of all at one time or another that we take it as one of the daily vicissitudes of life. Why do we deal with the slighter forms of pain, as, with some exceptions, I think we are too much in the habit of doing, in a different way? I believe the reason to be that which I have given—that we have no gauge for the degree of pain, and because the advice to grin and bear it is too likely to be resented, unless it be presented with tactful modulations, the power of which we do not all possess. The truth of what I am saying is illustrated well by perhaps the most homely ache that we possess—viz., toothache. He would be a very unwise physician who for every aching tooth advised extraction, because we all know well that a bad tooth will often ache as a barometer of fatigue or worry or ill-health. A dose of quinine, a dose of rest or sleep, sends many an ache of this sort away; while I suppose you must all remember similar cases to the neurotic lady I saw the other day, who, refusing to accept advice and wait for the action of such remedies as these, insisted on having her tooth out, and then came back to me with her ache far worse than it was before.

Now whatever may be the common practice with each of us, it is quite certain that such cases as I have mentioned

of general aches and pains are made worse by treatment directed only to relieving their pain or abnormal sensations. I will go further, and say are certainly ruined by such treatment, and they are as certainly relieved somewhat, we cannot say by half as much as we could wish oftentimes, because their ailment is the result, one might almost say a part, of their being by other measures. Job's comfort this some will surely say, but I reply that to recognise the reason of a thing is always the first step towards any real cure. And let me enforce my remarks on this head, and perhaps help to make my meaning still clearer, by alluding to another common group of cases. There came into my room one day a year or two ago, on one of the hottest of summer days, a young Cambridge graduate, of whom I had previously heard that he was a martyr to his ill-health. From what had been told to me I was not altogether surprised when a dark-haired, pale-faced, nervous man appeared upon the scene, cloaked in a thick inverness cape and with his collar turned up. But I was surprised, when peering slowly round the room, he espied a window open by a hair's breadth, and immediately asked leave to shut it. This in the middle of summer, mind you. My wonder grew, too, apace as he next proceeded to divest himself of layer after layer of apparel; first his inverness, next his coat, then, I think, more than one waistcoat, a linen shirt, a flannel shirt, a Jaeger, and last of all a chest protector. Can you wonder that he had developed a subserviency to what he was pleased to call draughts and chills, that made his life not worth the living? This poor fellow was leading a wasted life, for he had given up, or deemed himself unfit for, the occupation he had wished, and why? Because, so far as I could find out, he had been nursing his neurotic tendency until he had become a perplexing and anxious burden to himself and his friends. A straight talk on the elements of physiological knowledge came as a revelation to him; so much so that I was enabled to induce him to leave my room without his cape on, though how soon he went further than that I have not been privileged to know. But, at any rate, I hear that not long after seeing me he went to the tropics; has lost all his weakness, and become quite a new man. He is now married, and rushes about, and does anything like an ordinary mortal. But the main point is, How came he to this pass? And I hope I shall not be considered uncharitable in attributing something of the bad result to a want of vigour in the professional advice he had been receiving all these years. We are many of us much too afraid of giving advice to patients that we think they will not like; and in being so, a poor neurotic slides on, year after year, and, only too likely, becomes eventually a wreck at the hands of the profession which should have saved him. And if you doubt it, think only for a minute of the many women who are only too ready to think they have a spine. There is a halo of sanctity attaching to the spine, such as never has been thought of for the skull; and I really believe there are some who regard a weak spine as an evidence of distinction, they nurse it so long, and even in after years still seem to regard its former achings with such affectionate, if not regretful, tenderness. Well, now, I doubt whether there be such a disease as neuralgia of the spine; but no doubt the difficulty lies in distinguishing between the early stages of spinal disease and the mere achiness that is best treated not by rest but by distraction. This must be so, for I could show you a man now who has been cauterised all down the spine, who has had a running sore made and kept open for weeks, who has been roaming the wide world under "the best medical advice," but who has never had a whit the matter with him save a bad set of nerves, and who has been practically well since I told him so.

The next condition that requires mention is a very common one, and I can describe it no otherwise than as simple fatigue. This is of course a vague sort of symptom likely to lead for that very reason to important errors in diagnosis. I feel constrained to dwell upon it because there is no other class of ailments that I find more difficult to make the public understand than this. "I am always so tired," say these men and women, but more often the latter than the former. "I am tired when I get up in the morning, and tired all day, and yet I cannot say that there is anything the matter." Nor is there. "It is better," says the autocrat of the breakfast-table, "to lose a pint of blood from your veins than to have a nerve tapped. Nobody measures your nerve force as it runs away." I suppose that anyone here could give notes of several such cases—people easily knocked up, and yet without any discoverable disease. In such cases it behoves us of course to be very careful not to overlook anything, and it is as well to give several examinations if there be any doubt; but they pursue the even tenour of their languid way too long for serious disease, and the feeling of fatigue is part of the order of their being. These cases all have this other feature in common, that they are neurotics. Let me note the salient features of two or three of such cases. One is a man aged forty-four. He has had rheumatic fever, which in itself is enough to constitute a man a neurotic, for its whole history betokens its affinities. He was in business, but gave that up, and now is a farmer, but he cannot work long. He is not short of breath, and his appetite is as good as ever it was; but he is always tired, and he says he could not walk the ten minutes to his farm if he were given five pounds to do it. In another case it is a woman, again with a history of rheumatic fever, but with no disease. She is a lady of a decidedly intellectual turn, but she declares that she never has any energy for anything, and her daily duties in her house are a regular burden to her. Another case is a young lawyer whose father's family he calls a decidedly nervous one, and his mother is very gouty. He has had indigestion and a liver for twenty years, and wakes up with a coated tongue (I wonder who wakes up with a clean one?). Of late he had lived in the country and had had a lot of exercise, and had been better, but then he got the influenza, and since then he had felt weak. He came to me because, as he expressed it, he was so dead tired from the time he got up in the morning till the time he went to bed at night. He was quite free from disease as far as I could make out, he was not wasting, and I attributed all his ailment to the fact that he was hard at work from nine till six, that all his vital energy was thus consumed, and he had none to give to his muscular system. Now I hope I shall not be understood to say that all those who complain of fatigue and inability to do their ordinary day's work are neurotic. There are of course many causes of muscular fatigue; the man who habitually eats and drinks too much may feel the same lassitude, the habitually constipated the same, the man with an excess of uric acid in his blood the same; but, deducting these and all other causes of muscular malnutrition, such as acute blood poisoning and the like, I will still maintain that there are a large number of people who come complaining of this symptom for which the most probable explanation is that their nervous flow is not produced in sufficient quantity to suffice for the needs of the various organs that require it. There are some who generate enough, but they distribute it unequally, or, rather, the consumption by certain organs is prodigal. The brain holds debenture stock of this investment, and so those who tax their brains unduly, whether by work or worry, are very likely to experience this feeling of fatigue, because their muscular system has not the requisite supply of energy wherewith to make it go. On the other hand, there are others who make little nerve force at the best of times, and although their brain power never shows above mediocrity, or something lower, they yet suffer in the same way as those more highly endowed, but at an altogether lower pressure along the whole line. I shall have to utilise, and I think enforce, this explanation, when I come to the subject of indigestion; but in the meantime I may gain some support for it from another set of cases perhaps similar and only more pronounced, and of which some of you must have seen examples. I mean the curious conditions of complete nervous collapse seen now and again after severe mental strain. Here is such a case. A clergyman aged forty-six, the incumbent of a London parish, first began to have peculiar attacks some three or four years ago after very hard work. He would be suddenly seized with numbness in his hands, his nose, tongue, and mouth, with violent pains in his knees, a feeling as if he were going to die; then a violent fit of crying would come on, and this was succeeded by a sleep of eight or ten hours. He had been well for many months, and, indeed, till just before I saw him, when he had a sudden return of not quite similar attacks, in which *breathlessness* was the chief symptom; but he also had the most acute pain in the right arm, and fainting afterwards, he thinks, from sheer pain. I saw him two or three times, and could not make out much. I never was quite clear about the nature of the attacks; no medical man saw them, and I was therefore obliged to take the statement of the

patient and of his wife; and the latter described them to me as a mixture of cramp and hysteria, but that they ended in a state of complete exhaustion and drowsiness, and he only slowly regained his strength. I thought at one time that they might have an epileptic taint about them, but I do not now think that such was the case.

Another case was that of a younger man who had always been subject to headaches, which had of late been on the increase. He had had a great deal of worry before the attack I am about to relate, and, his headaches being worse, he was taking a few days' holiday. When out for a ride he suddenly became quite dazed; he found his way home, or his horse took him, for he was not conscious of where he was, and his memory for that period was a complete blank. He slowly came to himself, but was confused till the next day, and when I saw him so late as six days afterwards he still felt stupid and his head heavy. Except for his headaches he has remained well ever since.

Another somewhat different case is as follows. A surveyor of thirty-six years, whose father died of diabetes, while out with the Volunteers one day in August had a sunstroke. In passing I may remark that a sunstroke must be a serious thing, quite apart from the causing hyperpyrexia, for I have seen certainly five or six cases where it seemed to be the starting point of a number of morbid nervous actions. He had never been well since the sunstroke, he had had bad vertigo since then and curious sensations at the back of the head. Not long afterwards he fell some twelve feet through a trap-door, and this greatly prostrated him. I could make out nothing except that he had a slight buzzing noise in his ears; but he spoke slowly and in a depressed manner, and all his reflexes, knee and wrist, were exaggerated; and his urine contained sugar in small quantity.

Last of all of this class of cases I would take that of the woman whose attack may begin in a variety of ways, either by an attack of colic or seeming colic, or by violent pain in the side that is referred to the heart, but in all probability not correctly so, or, it may be, by some indescribable feeling of illness; but each and all of these are followed by what can only be described as a state of complete exhaustion. Often have I been called to such cases, and found that the medical man in attendance has been sitting with the patient for hours, perhaps all the night, because he was afraid of sudden dissolution, and the heart is the organ that is supposed to be failing; whereas the truth of the matter is that the heart is perfectly sound, and if one may venture to form an opinion after the crisis is over, I do not suppose there has at any time in the progress of the attack been any danger of death whatever. I cannot think that this is a form of neurosis that receives adequate recognition; and I believe the real nature of the malady is often overlooked because the household is in a panic, thinking the trouble one of the heart, and the medical man not quite sure that there may not be some real disease, and not wanting to make a mistake, first for the sake of his patient, and next for his own reputation, acts on the side of caution. There is no danger in these cases; they only need, they and the friends, who generally cause most of the mischief, a decided assurance by the doctor in a tone that shows to them that he knows what he is talking about, that the patient will soon be all right. A little valerianate of ammonia or bromide of ammonium and sal volatile complete the cure.

One other group of this sort I must mention, although it has been so often talked about that there is no need to say much. It comprises the large group of cases born of anxiety for the supposed want of virility, or rather for the loss of health that is supposed to accrue from the too frequent involuntary excitement of the sexual centre and its natural physiological consequence. I do not know who coined the word spermatorrhœa, whether it was a quack or an honest man, but I do know that it figures as a disease on the nomenclature of the Royal College of Physicians, and that there are surgeons of repute, physicians also, perhaps, for aught I know, who still make use of the term, and who treat what they consider to be the disease. There is no such disease, and the occurrences that are supposed to indicate its existence are natural and physiological, the absence of which in some degree would be evidence of feebleness or of ill-health; and the more or less of which is the subject of much variation within the range of health. And I have this to say about seminal discharges, that they are troublesome or complained of in two classes of persons—the very muscularly strong, and in such as work hard and in consequence run into a state of nervous erethism. In either case a continent man is likely to suffer more in this way than is natural, but this is not to say that it is a disease that requires to be treated; it may be allowed to be a matter that admits of one visit to a doctor, but by him it is to be relegated to its proper position in the individual's mind by a short lecture upon the most elementary physiological principles.

Allied, again, to these cases of prostration comes another group, characterised only by emaciation. And here again one has need to be very careful not to overlook anything. But there can be no question that nervous exhaustion, or breakdown, or whatever we choose to call it, is capable of producing the most extreme wasting, quite apart from the existence of any disease. The most extreme instance of this that I have ever seen was in the case of a young man whom I had already known some ten years or more, and who was much given to worrying over trifles. Some sixteen years ago he walked into my room one day, and in doing so produced an electric sensation throughout me which I have never forgotten, for I could not get out of the idea that I had shaken hands with a corpse. He was an absolute skeleton, and his little wizen face had that peculiar appearance of the skin of the forehead that gives the idea that the skull is showing through it. Well, I examined him with the utmost care, and I could find no evidence of disease of any kind. I think that is good evidence that there was not much wrong, so far as gross disease was concerned, for in those early days I fancy that the errors we commit are not so much those of omission, but we often find diseases that have no real existence. Well, I could find nothing, but I did not nevertheless give up my opinion that had consigned him prematurely to the grave. I could not find anything, so much the worse for me; not the better for him. I still held to the idea that, concealed under the thin skirts of his fleshly covering, there lurked a something that was gnawing at his vitals. Indeed I believe I came the nearest I have ever done to believing in the popular notion, that perhaps he had a tapeworm. But in supposing that this man had some hidden disease that could not be discovered, I had overlooked the power of the disordered nervous system to produce the symptom that had alarmed me so much. I realised it afterwards to the full when week after week, sometimes day after day, he would come and talk by the half hour of his ailments, till sometimes I think my visage must have caught the reflection of the sickly light that shone so plain in his. However, his worries wore off, and his business, which was a harassing one, prospered, and his flesh came again to him, if not like the flesh of a little child, yet with sufficient plumpness for his needs, and that man is alive and well to-day. I could give you several others of like kind, if not quite so extreme in degree, but I have not time; but there can be no doubt about the influence of the nervous system in modifying nutrition in this way, and what is more, it is one of the most interesting subjects in the whole range of medicine and physiology. We talk about diet influencing the nutrition, and we diet fat people to make them thin, and thin people to make them fat. But I have never heard of this experiment being carried out yet: the taking twenty consecutive cases of obesity, treating them on the same plan, and publishing the results, and doing the fattening process on the lean kind in similar way. We hear of Mr. So-and-so's diet as a good thing because it has reduced one or perhaps two people, but I make bold to say that there is no diet that has ever been suggested that has not failed, and failed absolutely, in many more cases than it has ever succeeded in. There are some people, ay, many, whom you can never make thin, and there are many people, and those usually, and here is the point of its introduction here, of a nervous temperament whom, do what you will, you can never make fat. I see children, for instance, who are brought to me for an opinion because they are so thin; they are always eating, and yet never do any credit to their victuals, and they are fed up and made to take cod-liver oil, and maltine, and all the latter-day fatteners. But these children are always twitchy, half choreic, or excitable; and they belong, for the most part, to the nervous temperament. No good is done by stuffing them; on the contrary, their urine becomes loaded with solids, their intestine fails to digest properly, and they have repeated bilious attacks. Put them on an ordinary diet, perhaps rather a spare one, and plenty of water to drink, and though they do not get

fat they keep in much better health, and indeed they cease to give much anxiety to their parents.

And now that I am on the subject of children in this regard another condition comes to my mind that is very common: it is a neurotic condition, and one that is not fully apprehended in many cases. I allude to the pyrexia that is so often produced in young children by falls on the head, or blows of any kind in that region. It is quite common to be called to see a child who has been quite well till a certain day, when it has had an injury to its head by a fall or what not; and thereafter it has, within a day or two, become feverish, and in consequence the onset of meningitis is feared. I have seen cases of this kind repeatedly, and they have always seemed to be of considerable interest, because they may point to the injury of some heat centre or regulator. But I do not think this explanation is so probable as that the injury to the head leads to disordered nerve control over the viscera, which elaborate the blood and depurate it of effete matters, and that in consequence the pyrexia is a direct result of this faulty action of the viscera. And I believe head injuries of this kind are capable of inducing even definite disease in this way. For instance, some three years ago I saw a little boy of two years old who had been quite well. He had a fall on the 5th of the month. On the next day he was quite well, but on the 7th of the month he was very sleepy and wanted to stop in bed. He was seen by Mr. Stokes of Blackheath on the third day after his fall, and he then had a retracted neck, had vomited once, and he was still very drowsy. When I saw him his temperature was 101°, his pupils active, no intolerance, and I regarded it as one of the cases I am discussing. He remained in the same drowsy, irritable, indefinite state for a fortnight, and then slowly developed into a case of apical pneumonia that came on very slowly and obscurely, and which ultimately got quite well. Am I because of the result to alter my opinion of its cerebral origin and say the fall had nothing to do with the attack? Had I seen no other similar attacks I might be inclined to think so, but having seen many of somewhat similar character I stick to my guns, and I really believe that injuries to the head are quite capable, by interfering with the control power of the nervous centres, of leading to disordered function in the first instance, and in the second to such pronounced organic departures even as an acute pneumonia. I doubtless speak to those whose experience can supply other cases to which a like explanation would be not inappropriate. And here I must close for to-night with the remark that it often strikes me when dealing with such conditions as I have spoken of how intimate is their connexion with pronounced insanity. It is a happy thing that one can say for certain that such conditions as these go on for many years; but many of them pass out of notice, and we do not have the opportunity of seeing the result, and one cannot but think that in some of them, at any rate, one must see the beginnings of insanity; and in some of them, probably, the incipient stages of that most terrible of all its forms, the general paralysis of the insane.

THE BEARING OF RECENT BIOLOGICAL RESEARCHES ON THE PRACTICE OF MEDICINE AND SURGERY.

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(*Continued from page 79.*)

WHERE there are no lesions of epithelial surfaces, and where the tissues are moderately healthy, bacteria cannot invade the body; or, if they do find their way in, they are killed off, comparatively rapidly. Accepting this statement, we are still confronted by the fact that patients, especially those treated in our large hospitals, are admitted because they are suffering from such lesions; in addition, from the very fact that they find it necessary to seek hospital shelter, they are often ill-clad, overworked, and badly nourished. Their hygienic surroundings are none of the best, and these acting on a weak constitution have further impaired any general vital powers ever possessed by them. (It must be remembered, however, that in this process a certain immunity by acclimatisation may have been acquired against some forms of disease, although the susceptibility to others may have been materially increased.) Such are the patients for whom antiseptic surgery was originally introduced. Their tissues were not able unaided to combat the many micro-organismal agents found in our badly ventilated and often permanently infected wards before the system was introduced, and for such, in some form or other, it still remains necessary.

All will admit that patients in perfect health before an accident, if operated upon and kept under good hygienic conditions, supplied with good food and plenty of fresh air, will make a good recovery without excessive, or perhaps with a complete absence of, suppuration, and with no symptoms of pyæmia or even of septic absorption beyond a rise of temperature with other indications of a slight febrile condition. In a similar patient a large accumulation of serous fluid—in the chest, say, or of synovial fluid in the knee, or a mass of bruised and dead tissue—the result of a blow—may be slowly absorbed without the slightest trace of putrefaction or septic change being set up. Should, however, any dust from without or any dirty instruments be introduced into these masses of devitalised tissue, inflammation and more or less severe suppuration are at once set up, and an empyema, a purulent synovitis, or an abscess may be the result. In a weakened or anæmic patient with an open wound or with an accumulation of serum, an extravasation of blood or a mass of dead tissue, most of the conditions favouring septic mischief are present, and as he is placed in a ward with other patients, breathing the same air, dressed by the same hands, and operated on with the same instruments, the risks of septic mischief are enormously increased unless the strictest antiseptic precautions are taken (1) to remove any dead tissue on which the organisms might feed; (2) to prevent the access of micro-organisms to the wound or dead tissue—(*a*) from the cutaneous surface, or (*b*) from the lungs or alimentary canal; (3) to put the tissues under the best possible conditions, so that the phagocytes (or the blood serum, or both) may manifest their special protecting powers—in fact, to allow of what we call the healing power of nature to come into play; (4) to remove from the region of the patient, from dressings, and from instruments all organic and other matter which might possibly harbour putrefactive or septic germs. These I was taught by Lister (although he never spoke of phagocytes) to look upon as the main factors in the antiseptic system of treating surgical cases. Although the methods by which these ends are to be attained have necessarily been modified from time to time as experience has indicated fresh difficulties and suggested better means of obtaining the desired end, and although the kind of antiseptic used may have been altered (not always improved) as experiment and experience seem to have indicated certain advantages to be gained by the use of one or other reagent, the above principles as enunciated by Lister still remain unaltered, and I may be allowed to speak of some of these points.

Of the removal of dead tissue on which the organisms may feed it would at first sight seem unnecessary to speak; this has been so fully insisted on by even those who, "having no faith in antiseptics," all of whom acknowledge the necessity of carrying out this part of the system. The older surgeons, than whom none were more careful in observation, had a horror of all sloughs and dead matter in their wounds; and though many of them were delighted enough to see "healthy laudable pus" (healthy because it showed that the tissues were reacting, and were doing their work of localising the mischief as far as possible), they were glad enough to get rid of it. All accumulations, such as those above mentioned, necrosed bone and the like, once exposed to the air were removed as soon as possible, and even those that were not so exposed were frequently removed by incision or excision. It is now known that these, in weakened and unhealthy patients especially, were sources of danger, because decomposition changes were set up in them by the septic or other organisms which found their way to them, either directly from without through the broken cutaneous surfaces, or indirectly through diseased mucous membranes, and thence conveyed by fluids and cells deprived of their healthy or normal activity.

Let us take the case of puerperal fever, which is now recognised as resulting from the absorption of septic material from the cavity of the uterus. Under normal conditions

where the placenta is thoroughly detached, and there is no great hæmorrhage, the clots are soon removed, the discharge ceases, or appears to undergo no decomposition changes until the uterine wall has so far healed that a barrier to the absorption of the products of decomposition is built up, and no damage is done. If, on the other hand, fragments of placenta remain adherent and hæmorrhage occurs, the frequently broken surface continues to absorb for some time, and fever is the result. The introduction of scarlatinal, erysipelatous, or septic germs in either case is, as we know, attended with the most disastrous consequences, as even where the amount of hæmorrhage is comparatively small the blood that is present affords sufficient pabulum for the growth of the organisms, which once gaining a foothold have a coign of vantage from which to commence to form their poison, and in some cases from which to invade the tissues of their host. The practice of obstetricians was, from our present point of view, for long far in advance of that of surgeons in the matter of douches, cleanliness, and the like, but the general surgeon may certainly claim priority as regards the adoption of antiseptics on any systematic or methodical plan. The first cardinal rule with the obstetrician is that all matter that could possibly harbour germs or afford them sustenance of any kind is most scrupulously removed. The second and third rules, as stated by Lister, are attended to by constant application of antiseptic douches, especially where the wall of the uterus is more injured than usual, and the fourth rule is made much of as in general surgery.

This presence of dead material in wounds has always been looked upon as one of very great importance. Sloughs, masses of dead tissue, synovial fluid, serum, the fluids in the serous cavities, and even blood itself have been, and still are, considered, in the positions and under the conditions in which they are sometimes found, as being detrimental to the healing of wounds, and also as affording a nidus in which micro-organisms might flourish, however they might find their way into the wound or cavity. Lister, recognising the necessity of getting rid of this material, especially in the earlier days of his method, utilised indiarubber drainage-tubes, which in his hands and in the hands of those who followed out his method in all its details gave most admirable results. After a time, however, as the methods became simpler and more reliable, it became evident that there were many cases in which drainage-tubes were unnecessary, and which would be better treated by compression along with strict antiseptic dressing, especially where the parts could be left untouched for a considerable length of time; or by the use of a modified form of drain of chromatised antiseptic catgut, which could be left in position until absorbed, thus doing away with all necessity for disturbing the wound, the catgut being first absorbed in the deeper part, and disappearing entirely as the wound closed from below and just at those points where it was no longer needed. It has been objected that the presence of an indiarubber drainage-tube prevents the sides of the wound from coming together, and that many cases in which healing by first intention might be obtained are kept from so uniting and the recovery of the patient is somewhat retarded. The objections, however, do not end here. Any foreign body, as we have already seen, causes irritation and consequent exudation of both serum and leucocytes, and the tube by its presence keeps up a constant and sometimes prolonged discharge, as a result of which the dressings are saturated, they have to be removed more frequently, the wound is exposed, and the risk of infection is increased in proportion to the increased number of dressings required. Welch[1] points out that in addition to these objections there are two very important ones—viz., (1) That in these tubes any bacteria which may get in find protection against the "bactericidal influence of the tissues and animal juices"; and (2) that "bacteria may travel by continuous growth, or in other ways, down the sides of a drainage-tube, and so penetrate into a wound which they otherwise would not enter"; and he says, "we have repeatedly been able to demonstrate this mode of entrance into a wound of the white staphylococcus found so commonly in the epidermis." Anyone who has had to treat large suppurating wounds in which the granulation tissue has from time to time blocked the lateral holes in a drainage-tube knows how difficult it is to withdraw, clear, and shorten the tube without causing some hæmorrhage, and I remember well the regrets that were given utterance to by Lister and Chiene when they found it necessary to disturb the granulations by which the healing was being brought about, as they were thus compelled to undo part of the work that was already done; and, perhaps, even still more important, they had to disturb nature's barrier of active connective tissue cells well supplied with blood-vessels and leucocytes, set up to prevent the entrance of bacteria or their products from the wound. Drainage-tubes are no doubt necessary in certain cases; but Welch has well summed up as follows: "The advantage from the employment of drainage-tubes is, of course, the removal of secretions, and this indication becomes an urgent one if the cavity with which the tube communicates becomes infected and suppurates. In a given case the surgeon must weigh the advantages and disadvantages, and act according to his judgment. The practice of many surgeons at the present time of restricting within much narrower limits than formerly the use of drainage-tubes and of discarding them for all wounds which offer a fair prospect of primary union is a distinct advance in the technique of antiseptic surgery." Of the various methods of treating wounds without drainage it is now not necessary to speak; but one method of treatment cannot be passed over without something more than a mere reference. It has already been insisted that where there is any danger of micro-organisms finding their way to a blood-clot the very best treatment may be to evacuate the whole mass and then allow the wound to heal by granulation. Then, too, no one would think of leaving blood-clots in any serous cavity if he could possibly remove them without doing any injury to the peritoneum.

In the case of smaller cavities, however, and in healthy patients the removal of blood-clot is not necessary, and under antiseptic treatment the blood, even in considerable quantity, may be of very great value in serving to form a scaffolding (a scaffolding which is said to retain a certain amount of vitality) on which new tissues may be built up. The first two cases I saw of the actual application of what had been suggested by John Hunter were in the wards of Professor Lister and Mr. Chiene in the Edinburgh Royal Infirmary. The experiments were carried on independently, so far as I can remember, and within a very short time of one another. In Lister's case a long deep groove had for some reason or other been made in the front of the tibia. This groove or trough was allowed to fill with blood, after which the wound was dressed with the strictest antiseptic precautions. Each time as the wound was dressed and as the clot contracted fresh blood (obtained by simply pricking the clot) was run in until there had formed a mass of organised tissue which completely filled up the groove; periosteum grew over, and a capital result was obtained. Chiene's case[2] was of a somewhat similar nature. After the removal of a large horn from the heel of a patient a cavity of considerable size, forming a kind of box, with the os calcis as the floor, was left. This cavity, filled with blood and covered with "protective," was dressed antiseptically, and on the sixteenth day organisation had taken place in the clot, and the epithelium had commenced to grow in from the margins of the wound. There was, however, a hollow left; this was again filled with blood drawn from the now vascularised clot, and organisation took place. Unless antiseptic precautions are taken it would be impossible to obtain such organisation in blood-clot in an open wound; for although it is quite possible, nay, it has been actually proved, that freshly drawn blood has some power of inhibiting the growth of, or even of killing, certain micro-organisms, this power is soon lost, so that if exposed for any great length of time to the attacks of micro-organisms the clot must ultimately undergo decomposition changes, and so lose its value as a scaffolding into which connective tissue cells and young capillary vessels can make their way. Many surgeons have a dread of blood-clot in any position and under any circumstances, but now, owing to the above observations, and, according to Welch, especially as the result of the later observations of Schede (1886) and Halsted (last year), the filling in of wounds with blood-clot has to be recognised as an extremely useful method of obtaining healing. Lister insisted on the power of freshly drawn blood to resist the advance of putrefactive germs, and he indicated that these powers of resistance are much greater than we are usually inclined to allow. His observations have been confirmed and blood-clot has taken its place as a dressing.

[1] Maryland Medical Journal, Nov. 14th, 1891.

[2] THE LANCET, July, 1875. See also American Practitioner, July, 1879.

On the other hand, no one will for a moment contend that blood-clot with its contained red blood-corpuscles is equal to the fibrinous lymph such as we obtain on an inflamed serous surface, for example, as a medium in which organisation may take place. It is a soft, plastic material, which, like lymph, may fill every space; by adhesion it keeps parts in apposition; it contains for a time active living cells, and then allows of their immigration, as bloodvessels come near it; and lastly, it is made up principally of a proteid substance which can be readily peptonised and removed as new cells and tissues come forward to take its place. Its great disadvantage, as compared with fibrinous lymph, is that it contains a large number of red blood-corpuscles and much soluble blood pigment, which appear to act as useless foreign bodies, and all of which must be absorbed before healing can take place, and in this process of absorption many active useful phagocytes are occupied when they might be engaged in the removal of effete necessary material. Here, again, it must be remembered that the less work the phagocyte has thrown on it to do the more rapid will be the process of healing. It is for this reason that so many surgeons allow bleeding to stop, then allow serous exudation to go on for some time, and then, and not till then, bring the two free surfaces together. Where spaces have to be filled in, a large enough quantity of coagulable lymph cannot be obtained, and the next best substitute, coagulated blood, is used in its place. This method may be used in any case where antiseptics are employed, and where the tissues of the patient give any help at all; but woe betide the operator who allows blood to get in where it should not be, so that tension is set up, or who allows bacteria to gain a footing on the surface of his clot. The only advice that can then be given is, "get rid of all the unorganised clot as soon as possible, and leave only that in which partial or complete organsation has taken place, or that part in which a protecting layer of granulation tissue has been formed." After saying all this, we may be compelled to come to the conclusion that "under good antiseptic technique[3] wounds will heal even when they are left entirely to themselves, whether drained, obliterated, or filled with blood." "Exudations composed of fluid and cells would greedily accumulate in most of the spaces, and the fluids and cell possess antibacterial properties as well as blood. Granulation tissue would spring up from the sides. I venture to predict that if the surgeon paid no particular attention to the filling or obliteration of many of the smaller spaces in fresh operation wounds, and if the antiseptic technique was good, the process of healing would be as satisfactory as by any of the other methods mentioned."[4]

The aim of Lister's second rule is to prevent the access of micro-organisms to the wound or dead tissue, for, as he pointed out, once there they can only be attacked by means of powerful chemical antiseptics, which necessarily exert a most injurious influence on the tissues which under ordinary circumstances require to retain all their vitality and activity in order that they may deal with the organisms which might under any circumstances find their way into the wound. Everyone knows how chloride of zinc in strong solution interferes with the absorption of septic poison from a septic surface after an operation in which the tissues have been damaged by bruising and cutting. It first acts as a powerful antiseptic, preventing the growth and development of the micro-organisms and the production of their poison in the tissues otherwise prepared for their reception; whilst after a time it also sets up great leucocyte exudation not only at the free surface amongst and beneath the dead tissues, but also beneath the surface, so that the lymph spaces are filled with both fluid and leucocytes, both of which, as we have seen, exert a certain bactericidal effect. We may say in fact that in such a case bacteria are kept in check by the antiseptic until the tissues have had time to throw up defences, a process in which they are assisted by the antiseptic itself, which acts as an irritant foreign body. Strong antiseptics may even be used to render wounds actually aseptic after the introduction of septic material from without. In a case of compound fracture where a large quantity of dirt has been pressed into the wound the thorough flushing out with strong carbolic acid solution has, in Lister's hands, as I have repeatedly seen, given the very best results. Here no doubt the result was effected partially, as above described, but another factor must not be left out of account. The strong irritant, acting on bruised and partially devitalised tissue, continued the devitalising process, rendered sloughing easier and accelerated the removal of all tissue that might interfere with the healing of the wound or that might afford a nidus for the growth of micro-organisms. In these cases special requirements are indicated, and each case has to be treated according to the ingenuity and judgment of the surgeon; and the man who has grasped the principles of treatment most firmly will invariably obtain the most satisfactory results.

It may be accepted that any antiseptic substance in a wound not naturally there is out of place.[5] The spray is not now so generally used as formerly, as its use is thought to be attended with no special advantage at all equal to the trouble that it involves. There can be no doubt, however, that at the time it was used it was a most important factor in the success of antiseptic surgery, and I for one am scarcely convinced even yet that the disfavour into which it has fallen is an unmixed blessing. It is stated that it created currents of air which brought dust into the region of the wound, and that the carbolic acid contained in it was not sufficient to kill organisms that came under its influence. Admitting all that, I cannot help thinking that it acted as a most efficient watering-cart, and that much of the surrounding dust was precipitated, and once down was held there by the carbolised water, and that for this reason, if for no other, its use added to the success of the earlier operations. I am of this opinion especially as I saw the series of experiments carried on by Professor Chiene and Mr. A. W. Hare, in which, out of a large number of vessels containing nutrient broth, some opened under the spray and some without it—all in the same room—the number of those in which growths occurred was far greater in those opened without the spray than in those opened with it. Greater care as to the washing of everything with an antiseptic lotion has in part taken its place, but, I am still inclined to believe, not entirely. Of dressings for the prevention of access of micro-organisms to a wound it has often been said that all that is necessary is to have an "aseptic" substance. Theoretically this is true enough, but practically it is very misleading, for as soon as a dressing becomes damped it becomes an excellent conducting path for the passage of micro-organisms, unless it contains some antiseptic substance which will interfere with the activity of, or actually destroy, the invading micro-organisms. It is an easy matter to keep a culture in a test-tube pure if free evaporation through the sterilised cotton wadding plug is allowed, even when dust is permitted to settle on its surface; but if the moisture is kept in by means of gummed paper, tinfoil, or indiarubber caps it is necessary to take the very greatest care to destroy all micro-organisms beneath the moisture-enclosing substance. Any antiseptic substance will act more or less as an irritant, and cases have been recorded in which the continuous washing out of a wound has kept up irritation and suppuration for a lengthened period. Where wounds are septic we have to choose the lesser of two evils, but where the wound is aseptic all that is necessary is to keep it so, and nature will do the rest. It will be necessary here to speak only of the micro-organisms that may come (1) directly from without, (2) from the skin, and (3) from the cavities and channels within the body.

(To be continued.)

[3] Welch, loc. cit.

[4] This opens up a much wider question, and one on the discussion of which we can scarcely enter at present, but for which we refer those specially interested to Professor Welch's paper.

[5] I well remember the pride with which I received Lister's commendation for reproducing this teaching of his, in a somewhat exaggerated form, in an examination paper sent in when I was a junior student of surgery; whilst later I was much impressed by a dictum of John Duncan's (a thorough believer in the utility of the antiseptic system), that if we thought more of the application of antiseptics to ourselves and less of the application to the wound, the patient would be the gainer.

ROYAL INSTITUTION.—Professor Victor Horsley, F.R.S., will on Tuesday next (January 19th) give the first of a course of twelve lectures on The Brain; Mr. A. S. Murray, LL.D., will on Thursday (Jan. 21st) give the first of a course of three lectures on some aspects of Greek Sculpture in Relief; and Professor J. A. Fleming will on Saturday (Jan. 23rd) give the first of a course of three lectures on the Induction Coil and Alternate Current Transformer. The Friday evening meetings will begin on January 22nd, when the Right Hon. Lord Rayleigh, F.R.S., will give a discourse on the Composition of Water.

PERINEAL DRAINAGE IN INVETERATE STRICTURE OF THE PENILE PART OF THE URETHRA.

BY C. MANSELL MOULLIN, M.D. OXON., F.R.C.S. ENG.,
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IT is a mistake to suppose that strictures of the penile part of the urethra are invariably, or even frequently, the result of cicatrisation. Occasionally the mucous lining is destroyed by injury for more or less of its circumference, or eaten through by ulceration; but nearly always, as Berkeley Hill and others have shown, if the urethra is laid open, the membrane can be dissected off, thinned and discoloured, it is true, but intact, and capable of being unfolded its whole width. The first beginning of a deep-seated stricture is usually either a granular patch on the surface or an inflammatory deposit in the substance of the mucous membrane—sometimes the one, sometimes the other; and it steadily increases little by little as fresh lymph is poured out around and beneath it, involving first the urethral and then the peri-urethral tissues, until at length it forms a definite obstruction. The problem in the treatment of stricture is how to ensure the absorption of this deposit without causing the addition of more.

Temporary relief may be obtained by division or dilatation; and occasionally, if the lymph is still soft and cellular, so that its absorption can be effected without loss of time, this leads to permanent cure. But such good fortune is exceptional; nearly always a hardened patch or an open ring is left in the substance of the wall, less elastic than the tissues near, and unable to yield smoothly and evenly when the folds of the mucous membrane are straightened out by the passage of the urine. There may not be sufficient obstruction to cause any difficulty, but there is enough to keep up irritation and make the stricture relapse. Each act of micturition strains and pulls upon the tender tissues around; fresh lymph is thrown out, and organisation begins and contraction is well established before the original induration has had time to disappear. Strictures relapse and recontract, not because they are formed of scar tissue (with a few exceptions), but because the remains of the old and hard inflammatory deposit act like the little thickened patches, or the papillary granulations that are left after gonorrhœa, and begin again the old vicious circle. What is wanted is something that will hasten the fatty degeneration of the old exudation and help the tissues to remove it before the irritation of its presence can lead to the formation of any more, or cause any fresh trouble.

Unhappily, the means at our disposal for hastening the disappearance of chronic inflammatory exudation from other parts of the body are useless, or worse than useless, when the urethra is involved. Counter irritation, for example, is impossible. Pressure cannot be employed. If a tight-fitting catheter is introduced and left, the stricture tissue softens, it is true, and appears to melt away in the same way and for the same reason that dense fasciæ and ligaments become softened when a joint is acutely inflamed; but the effect is quite as transient; and clinical experience has proved that strictures treated by rapid continuous dilatation alone are usually the first to relapse. The only method is to free the tissues from every source of irritation, and secure for them a long period of complete physiological rest. If this can be done the hardened lymph will slowly disappear, and the walls of the urethra become soft and yielding again. In other parts of the body the absorption of the products of chronic inflammation begins as soon as the irritation that gave rise to it ceases to act, and if only strictures can be placed under the same conditions the same result will follow; at least, in those of them in which there has been no destruction of the mucous membrane. The curability of stricture has been denied. I have already shown[1] that it is by no means uncommon after external urethrotomy, and I am prepared to go further, and assert that not only is this possible, but that, under certain circumstances, strictures of the penile part of the urethra (or at least some of them) are capable of undergoing a process of spontaneous absorption.

The occasional success that attends extreme dilatation after Otis's plan, and after free internal urethrotomy, is probably to be explained in this way: thorough stretching or division of the stricture places the part at rest for a sufficient length of time, and the inflammatory products in the wall undergo fatty degeneration and absorption before they can give rise to sufficient obstruction or irritation to lead to the production of any more; but the result is very uncertain, even in comparatively recent instances. In older ones, especially in those in which there is more than one stricture, there is only one plan by which sufficient rest can be ensured, and that is by opening the urethra behind, in the perineum, and allowing the whole of the urine to escape without coming near the affected part. It is true the measure is a severe one, giving rise to considerable inconvenience for some length of time, but it is not intended to make use of it unless the conditions are severe.

My attention was first drawn to this by noticing the way in which strictures of the urethra sometimes disappear spontaneously in cases of extravasation of urine. In August, 1887, a patient suffering from this complication in an extreme form was admitted into the London Hospital under my care. The history, so far as could be ascertained, was of the ordinary character—several attacks of gonorrhœa, increasing difficulty of micturition, complete retention, and then suddenly, a week before admission, rupture and extravasation. The patient's condition was deplorable: the putrid fluid had spread far above the umbilicus, back into the lumbar region, and even into the ischio-rectal fossæ, Colles' fascia having given way by sloughing. The pulse was very feeble, and it seemed doubtful if the patient could survive the night. However, an anæsthetic was given, the stricture examined, and found to be impassable, at any rate at the time. Free incisions were made wherever the fluid had penetrated, the first in the middle line of the perineum, with the view of opening up the membranous portion of the urethra and giving free exit to the contents of the bladder. Six weeks later, when the patient had rallied and the incisions were closing in, it was thought that the time had come to examine the condition of the urethra. The whole of the urine still passed through the perineal opening, and there was no sign that the obstruction had yielded in any way. However, on trying a small black bougie (No. 2, English) it slipped through almost at the first attempt, and by the end of a week, passing a catheter every day, all obstruction had disappeared and the walls of the urethra were as soft and flexible at the seat of the stricture as they were elsewhere.

I admit the altered behaviour of the stricture may be accounted for, to some extent, by the subsidence of spasm and congestion. Before the rupture occurred the mucous membrane must have been subjected to an extreme degree of pressure and irritation. After the operation, for six weeks it was absolutely at rest. But I do not think, in such a case as this, spasm and congestion are factors of much moment. The real change was in the dense gristly mass that surrounded the urethra and filled up all the interstices in and around the submucous tissue. Left absolutely quiet for six weeks, without anything to irritate it, it had gradually undergone a process of degeneration and been absorbed, so that when at length a bougie was passed the narrow part of the urethra could be unfolded and opened out at once. Whether the cure was permanent or not I am unhappily not in a position to prove; but it may be admitted on *a priori* grounds that even if the chance of this at any time is not very great, it is certainly greatest if the stricture tissue is thoroughly removed by fatty degeneration and absorption, not merely stretched and left.

Such a measure as this is, as I have already said, a severe one for ordinary cases, although, if the patient will spare the time and put up with the inconvenience, he will, I believe, be amply repaid in the future; but it is not uncommon to meet with instances in which a perineal incision is rendered advisable, and even necessary, by the presence of complications, and in which it can be made to assist in the absorption of the indurated mass. All that is required is that it should be kept open for a sufficient length of time. In one case, for example, that was under my care in 1890 there was a number of false passages spreading out in all directions, so that it was scarcely possible to find the orifice; and the urethra behind was so dilated that when it was incised a long cul-de-sac was found running in the corpus spongiosum, far beyond the stricture itself, almost into the glans. In another the median operation was performed for the purpose of extracting the broken end of a bougie. In a third the bladder was drained for severe cystitis and strangury; and in a fourth the whole length of the penile part of the urethra was affected more or less, and there was already the beginning of a peri-urethral abscess.

[1] THE LANCET, Sept. 19th, 1891.

In two of these internal urethrotomy was performed at the same time; in the others the stricture was simply left alone, and all the urine allowed to escape through the perineal wound. The length of time this was kept open varied from a month to six weeks, but I regard the longer period as usually necessary. In no case did any fistula persist—the difficulty is rather in the opposite direction. It is not easy without maintaining a drainage-tube, or occasionally employing dilatation, to prevent the opening contracting prematurely. In all the stricture tissue disappeared of itself, so far as could be ascertained with a bulbous sound. It was not stretched or dilated; it was merely left alone, and when a catheter was passed it apparently did nothing more than open out again the folds of the mucous membrane, which were still collapsed owing to the way in which they had been so long pressed together by the inflammatory exudation.

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THE VERNACULAR MEDICINE AND SURGERY OF JAPAN.

BY BENJAMIN HOWARD, M.A., M.D., F.R.C.S.E.

IN aptitude, adaptation, and enterprise the Japanese have shown a decided superiority over all other nationalities of the Orient. These qualities added to great delicacy of manipulation have made them in art conspicuous throughout the world. It is but natural to expect, therefore, that they should be found to have arrived at something, both in medicine and surgery, which the nations of the West might find to be an acquisition. The earlier Japanese medicine dates back to the "Shindai," or divine age, many centuries before Christ. The Chinese, as early as 218 B.C., found their way amongst the Japanese doctors with medical books dating back, it is alleged, to 2737 B.C, and the influence of Chinese medicine upon Japanese medicine has continued to be a controlling one up to the recent introduction of European medicine now in vogue. As it is difficult to disentangle that part which is of Chinese origin, I include in the vernacular medicine and surgery of Japan all which pertained to its general practice, say, forty years ago, and which still pertains to the practice of about 30,000 out of the 41,000 physicians now practising throughout the Empire. Of the 30,000 of the old vernacular school one of them is still on the list of the Court physicians and maintains a high reputation.

The impression throughout Europe that coloured papers, exorcisms, &c, are the basis of Chinese and Japanese medicine is erroneous. I have myself seen nearly 2000 books by these people, covering most of the departments of medicine, but amongst which materia medica occupies altogether the leading place. In these books are the doctrines of the successive schools, strikingly like some of those which in past centuries existed amongst our own ancestors. The successive medical colleges have always had a professor of astrology, but the solid fact remains that the materia medica has included amongst its several hundred remedies a large number of those used by ourselves, and these are not only vegetable, but animal and mineral, in the latter class mercury being prominent. Surgery became a separate branch as long since as the seventh or eighth century. Tube acupuncture needles, so comparatively new with us, have been in use here since A.D. 1688. Centuries ago one of their authors wrote: "When medicines are ineffectual as well as acupuncture and the cautery, the abdomen and back may be opened, the stomach and intestines be washed, &c." A narcotic mixture employed on such occasions contained datura alba, aconitum, &c.

As the history of medicine in Japan once included so much which seems substantial I have inquired with much care amongst practitioners of the old or vernacular school—all of whom were in practice before 1876,—hoping to discover something in their practice now which would be a veritable addition to the medical resources of our European brethren. I am sorry to have to say that the result of my search has not met my anticipations. As far as I have been able to discover, the vernacular practice of Japan to-day, over the entire length and breadth of the empire which I have traversed, is entirely empirical. Rachitis being unknown, and the life led by the women being so much more natural than in Europe, obstetrics may scarcely be said to be needed, and certainly does not exist.

Syphilis, which came here from China in 1630, is treated in a manner which is the same in principle as the treatment I have seen practised in Nubia, where the patient for several hours at a time buries all the parts of his body except his head in the hot sands of the desert. In this excessively volcanic country the various hot springs which abound, and some of which are exceptionally hot, are the sovereign remedy. In these baths, some of which are fully exposed to public view, whole families, entirely nude, pass a large part of the time during their visit to the particular spa. In several cases I have not seen, but I have been told by the patients of results from them which certainly seem remarkably good. In acupuncture, which, as I have said, has been practised by the Japanese for many centuries, they exhibit very delicate manipulation. For six seng (3*d.*) one of the blind practitioners of this art will, without pain, insinuate a long needle into your stomach, intestines, arms, legs—almost any part except the eye and the brain. The conditions for which it is held in particularly high esteem are flatuence and colic; next, perhaps, in order for neuralgia and rheumatism of the joints. From my own experience I can say it is almost absolutely painless. The points to be penetrated are not entirely arbitrary, but are determined by astrological indications. It is a noticeable experience to see one of these poor blind men take from the folds of his "kimono," or robe, a case of beautifully bright long needles of gold, steel, or silver, and with the *nonchalance* of the Oriental, and without the slightest pause in his conversation, to see him burying his needles two, four, or six inches in various parts of your person in a way which would astonish a European professor of surgery. I mention this practice only as a pretty display of manual dexterity, not as a practice to be imitated. There is one medical procedure, however, in which the Japanese can teach us something in every particular. I refer to their manner of practising massage. For reasons sufficiently apparent, the number of blind in Japan, as in all Eastern countries, is enormous. Every blind boy or girl is expected to join the one guild which is exclusively their own and be an "ammah." With their small hands and supple limbs they give to massage a variety and a delicacy not approached even in India. To what extent anatomy enters into their training I do not know, but no duly qualified surgeon could seem to be more intimately acquainted with the formation of the joints and the course of the nerves as a guide to manipulation. As to percussion, they obtain it by a semi-rotation of the hand with a velocity so great as to make the movement almost invisible. The deeper structures external to the joints they get at with the olecranon process of the naked elbow, which, by an equally rapid movement of the forearm, reaches every interstice with a force regulated with the greatest delicacy. For the muscles of the back, as in lumbago, the "ammah" frequently use their feet, with which they are almost as dexterous as with their hands. When great force is desired this is very efficient. Plain rubbing, which is the principal part of massage in Europe, would be beneath their dignity. Nearly every one of their various manipulations includes some delicate manœuvre which excites one's surprise and admiration. So common is massage in Japan that on arriving at an hotel—next to the tea, which is always immediately brought—the "ammah" is the individual who will surely appear. For the superficial or general massage at such time the tariff price is six seng (or 3*d.*); but a European is expected to pay two or three times as much as that, unless he can talk Japanese, in which case he generally does not. I have had massage in Sweden, which I thought perfection; I have had it in Turkey, which I thought otherwise; I have had it in India, and found it in most instances too rough and indiscriminate; but with a good "ammah" or masseur in Japan I have had but one regret, which is that my friends at home could not share my advantage.

Another lesson we might learn from the Japanese with probable advantage is the more general use of the moxa. For almost any pain whatsoever, if persistent and if at all deep-seated, the remedy throughout the country is the moxa. Whereas with ourselves the moxa is, even with a surgeon, a very unusual remedy, its use here is one of the female accomplishments in almost every household. A cone of cotton-wool previously saturated with a decoction of the Artemesia vulgaris latifolia is placed upon the part concerned, and being lighted is allowed to slowly smoulder to ashes. It leaves a superficial eschar, which seems to heal without special attention. The performance is often seen going on in passing a house, a woman operating on a man, woman, or child, and dressing the patient's hair, perhaps, at the same time. I have therefore inferred

the procedure is much less painful than might be supposed. The sore is clean, exactly the size wished, and must often be a very useful counter-irritant. In the public baths I have counted on men, women, and children, as many as thirty or forty discoloured spots from this cause, a row being commonly seen on either side the spine, and many other marks on the limbs, especially in the vicinity of the joints. To get the same amount of counter-irritation, we should certainly disable the patient from any active occupation and compel a good deal of inconvenient dressing, all of which, if the counter-irritation was to be maintained, would require repetition. In hygienic matters the Japanese have everywhere a habit which also may have a lesson for us. In their nightly bath and morning wash the water is never cold, never warm, but always as hot as it can be borne. To foreigners this habit seems very surprising, but the most inveterate Englishman, if he stays in the country long enough, abandons his cold tub in its favour. The cold-taking which it is suspected must follow it is found not to occur if the water has been hot enough. This heat is maintained by a little furnace beneath the bath. In the bath the bather or bathers take a prolonged soaking, the washing proper being done on the bath-room floor; then follows a second and final soaking, drying with towel, and a lounge in bathing wrapper. This habit seems to promote softness and suppleness of the skin, and by persons inclined to rheumatism is soon found to be altogether preferable to the cold bath in every particular. The poorest of the Japanese hear of a cold bath with amazement, and would be sure the man who used it must be a barbarian. With respect to the superiority of the hot bath over the cold, I have come to find that in my own case certainly the Japanese are right.

The Paper Ice-bag.—From a pocket-handkerchief to an umbrella it is difficult to say what is not made out of paper, and everything made out of paper is comparatively cheap. The ice-bag is a very favourite remedy, both in private and in hospital practice. The ice is generally applied in bags suspended so that the patient may get the cold from it without its weight coming upon the affected part. These pretty little bags are always made of thin paper. They are much cheaper than the oil silk used by ourselves that, whether they become broken or not, they can be frequently renewed, and this, in a large hospital with surgical cases, is an important consideration. The texture is softer, it adapts itself better to the parts to which it is applied, and in a private patient one of these paper ice-bags will easily last in constant use for several days. They would be a valuable acquisition in English hospitals. I enclose one of them, that the Editors of THE LANCET may form their own opinion of it.

It will be observed that the only things I have thought worth recommending are rather outside than inside the lines of strict medicine and surgery. It would seem that the decline in medicine must have been as great as the decline in the prevailing religions; hence the alacrity with which the foreign systems of both were seized by this hungry people as soon as presented. The Japanese massage, then, the Japanese bath, and the Japanese paper ice-bag are things which might certainly be regarded in Europe as useful acquisitions.

ON THE ORIGIN AND SPREAD OF LEPROSY AT PARCENT IN SPAIN.

BY GEORGE THIN, M.D.

ONE of the chapters in the book on Leprosy which I have recently published discusses the evidence in favour of the contagiousness of the disease, and refers to a number of facts which I believe to be of great assistance in coming to a decision regarding that very important question. As part of this evidence a brief account is given of the origin and spread of an epidemic of leprosy at Parcent, in the province of Alicante, in Spain. The facts, as stated in my book, are abstracted from the *Annales de Derm. et de Syph.*, vol. ix., p. 390, the information there given constituting part of a memoir presented by Dr. Zuriaga to the Municipal Council of Valencia, and translated into French by Dr. Paul Raymond. As these statements are available to those who are interested in the matter, it is not necessary for me to recapitulate them here in detail. Considering, however, the very important bearing of the evidence and the significance of the whole question, I thought it advisable to obtain independent and confirmatory evidence regarding this outbreak. Dr. Zuriaga relates how a leper from the neighbouring town of Sagra came to reside in Parcent in 1850, where, at the time, there were no cases of leprosy. He there lived on the most intimate terms with a certain Vincent Poquet Andrés, the two friends eating from the same plates, with the same spoon, drinking from the same glass, and sleeping together. Within a year Poquet had acquired leprosy from his friend. From Poquet the disease spread, until up to the date of the memoir there had been about sixty cases of leprosy in the small village of Parcent, of whom forty-five had died.

In a considerable number of those lepers who were affected at an early stage of the epidemic the precise source of contagion was ascertained, and is described in Dr. Zuriaga's paper. Certain individuals were infected by Poquet, and members of their families and their friends, who were living in close association with them, were affected first, until, finally, a sufficient number of persons had become lepers to make it difficult to trace, in new cases, the exact sources of the original infection. By the kindness of my friend, Dr. Garcia Lopez of the mines of Rio Tinto, I have been able to obtain a copy of a report on Leprosy in the province of Alicante, Spain, by Dr. Oswaldo Codina, dated July, 1887, and presented to the Director-General of Public Health in Madrid, by whom he had been commissioned to inquire into the nature of the epidemic. I was unfortunately unable to obtain a copy of this report until after the publication of my book; but its contents are sufficiently important to justify me in now bringing the facts on which it is based before the profession. Dr. Codina, like Dr. Zuriaga, has satisfied himself that leprosy began in Parcent in 1850 by Vincent Poquet Andrés acquiring the disease from a leper from Sagra, who had arrived from the Philippine Islands, and who was known by the nickname of "El Indiano," and with whom Poquet lived on intimate terms. The friends, who were closely associated with these two affected persons, were after them the first to become leprous in Parcent. This entirely verifies the account given in my book. Dr. Codina confirms Dr. Zuriaga's statement that a nephew, who frequented his uncle's house, became leprous; and contributes the additional information that a cousin of Vincent's contracted the disease in 1857. Amongst the instances of contagion given in Dr. Zuriaga's report is that of one Joseph Mora, who was on terms of intimate friendship with Vincent Poquet, a fact that is confirmed by Dr. Codina. Dr. Codina does not relate in detail the further cases which I have abstracted in the book, but he remarks that there is a chain of evidence which links the subsequent cases together, the disease developing itself in those who associated with friends who were already leprous.

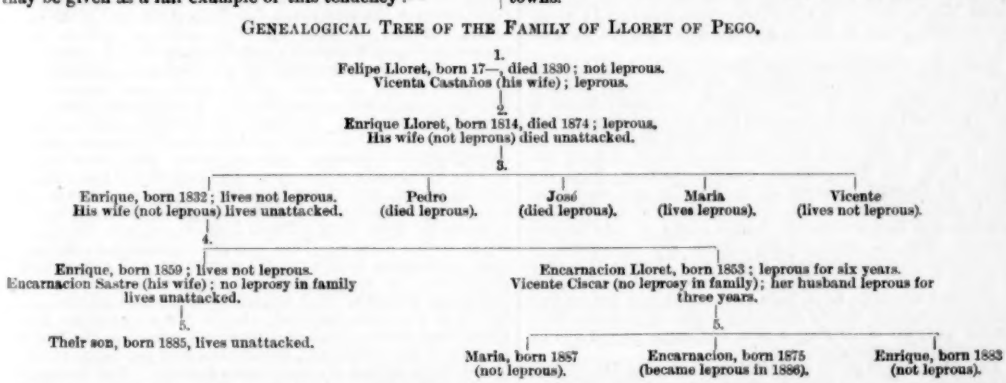
Dr. Codina relates how the disease, having once established itself in Parcent, spread to the nearest towns, and shows in the table which he appends to his report how Parcent has been the principal focus of the disease in that neighbourhood. Poquet had numerous connexions, which accounts, Dr. Codina believes, for the considerable number of cases of leprosy which occurred in the family. Those who shunned them, he relates, remained free from the disease. He further relates how, when leprosy spread from Parcent to the neighbouring towns, the first to become leprous was always someone who frequently visited Parcent, such as Frances Sirera in Murla, and Nicolas Poquet in Laguart. A mother gave her son to a wet-nurse who was leprous, and the infant soon showed symptoms of the disease, and at the date of the report was in the last stage of the malady. A brother of this child became leprous and committed suicide in the year previous to the date of the report (1886), being unwilling any longer to endure his sufferings. No case of the disease had occurred previously in this family. Dr. Codina relates that in Pedreguer the development of leprosy has to a considerable extent been arrested on account of an imperfect isolation of the affected persons in country houses. He describes how the isolation is incomplete, as the lepers are allowed to be visited by their children, wives, and friends. The disease was originally imported into Pedreguer in 1809 by the son of a schoolmistress of Denia who came there, and who was a leper; and since that time leprosy has always existed in the town, although from the beginning some steps were taken to attempt to isolate the cases. In other towns of this district which he has visited lepers and persons in good health mingled at church and market, and had their clothes washed in the same places. There is nothing to note clinically regarding the cases of leprosy referred to by Dr. Codina, who describes as an example a severe case in a woman, in whom the distinctive symptoms of developed leprosy were

present. All the cases, he remarks, are not so pronounced as the one described as an example. He particularly alludes to the common symptoms of loss of the eyebrows, the peculiar dull expression of face, spots on the face, cutaneous tubercles, sometimes prominent, sometimes only to be felt by the finger, shining, parchment-like skin, cracked hands, scabby nails, with ulceration more or less extensive, and occasionally very severe. The invasion of the mucous membranes and special implication of the nerves and eyes are noted.

I do not consider it necessary to take up more space by a full translation of Dr. Codina's account of the symptoms observed by him in the patients at Alicante. The lepers in that district show, he remarks, a tendency to isolate themselves in the country and shun observation, and for this reason it is difficult to ascertain their exact number, more particularly as they do not seek medical assistance. They remain unseen as long as they can, only going out at such hours as will expose them least to observation. Although from the tendency to hide cases of leprosy and other causes it has been found very difficult to trace the history of the disease in this part of Spain, Dr. Codina is of opinion that there has been in recent years a recrudescence of the malady.

The disposition of the disease to adhere to certain families is well known. The following history of leprosy in a particular family, which has been worked out by Dr. Codina, may be given as a fair example of this tendency:—

GENEALOGICAL TREE OF THE FAMILY OF LLORET OF PEGO.


1.
Felipe Lloret, born 17—, died 1830; not leprous.
Vicenta Castaños (his wife); leprous.
2.
Enrique Lloret, born 1814, died 1874; leprous.
His wife (not leprous) died unattacked.
3.
Enrique, born 1832; lives not leprous. His wife (not leprous) lives unattacked.
Pedro (died leprous).
José (died leprous).
María (lives leprous).
Vicente (lives not leprous).
4.
Enrique, born 1859; lives not leprous. Encarnacion Sastre (his wife); no leprosy in family lives unattacked.
Encarnacion Lloret, born 1853; leprous for six years. Vicente Ciscar (no leprosy in family); her husband leprous for three years.
5.
Their son, born 1885, lives unattacked.
5.
María, born 1887 (not leprous).
Encarnacion, born 1875 (became leprous in 1886).
Enrique, born 1883 (not leprous).

Here is a family in which we know that leprosy has occurred amongst some of its members for five generations. It is interesting to observe that in the third generation a son, who still lives unattacked by the disease, and who has married a wife equally free from it, has a daughter who at the date of the report had been leprous for six years, her husband, in whose family there was no previous case of leprosy, having been then leprous for three years. The history of such a family explains how readily the idea of the disease being hereditary has been adopted. It is only in recent years that a sufficient analysis of facts has shown the fallacies that have led to the acceptance of the idea that leprosy is hereditary, the history of the Norwegian lepers who emigrated to America having, I believe, very clearly shown that the disease propagates itself in certain families on account of the intimate contact which the members have with each other, and that when the conditions of life are such that this intimate contact is avoided the leprosy dies out. It is to Hansen that we chiefly owe the establishment of this fact, and the statistics on which it is based are set forth in my book. I believe that if this family of Lloret had lived under similar conditions to those prevailing amongst well-to-do people in the United States there would have been no leprosy now in this fifth generation, and am convinced that it is only by a general acceptance of this fact, and by the introduction amongst leper families of the habits which are its necessary corollary, that the disease will be exterminated.

Dr. Codina terminates his report to the Director-General of Public Health by submitting to him the following conclusions: "1. Leprosy has existed in the province of Alicante at least since last century. 2. The disease appears to have spread since 1809, and from Parcent especially, since 1850, it has spread to the neighbouring towns in an alarming manner. 3. Leprosy is not at present limited to a small number of towns. Not only are the towns belonging to the district of Parcent infected, but many others in the province; and, spreading over its boundary, the disease has affected some towns in the province of Valencia, where it has made considerable progress. 4. When leprosy has once appeared in a town it remains there, and cases are followed by others in an increasing proportion. 5. Leprosy is transmitted by inheritance, and, although many authors deny its contagious nature, the numerous cases which exist in the sea-coast towns, and its march and manner of propagation, incline us to admit that this cause has been the most powerful one in bringing leprosy to the present state of development. 6. The necessity of building a hospital for lepers should be insisted upon as the only means to prevent the further development of the disease. 7. Whilst lepers are not isolated, it is necessary to prevent all association with them, and oblige them to go out wearing shoes and gloves. All articles for their use or wearing should not be used by anybody else. 8. Inheritance being one of the causes of development of leprosy, lepers should not be allowed to marry. 9. They should be well attended to, and good food procured for them. Care must be taken not to allow them to come into contact, in business or otherwise, with healthy persons. 10. The authorities should give particular attention to the improvement of the sanitary conditions of towns."

The following table, copied literally from Dr. Codina's report, deserves careful study:—

"*Table showing the Cases of Leprosy in the Towns referred to in this Report.*

Towns.	No. of inhabitants.	Date of Invasion.	Cases up to 1887.	Lepers existing.			Remarks.
				Males.	Females.	Total.	
Parcent ..	150	1850	65	21	7	28	I gathered the data stated in the present table during my visit to the towns in the district of Parcent. Although I have endeavoured to obtain my information as accurately as possible, I am unable to guarantee its correctness. The towns sometimes hide the truth as to the number of lepers existing, and I may perhaps have made some mistakes; but if there are any, they will consist in showing too small, rather than too great, a number of lepers."
Laguart ..	400	1868	31	20	5	25	
Pego	1200	17—	—	14	6	20	
Orba	160	1873	25	12	6	18	
Pedreguer ..	720	1809	79	9	3	12	
Murla	120	1870	14	8	2	10	
Sagra	100	1848	13	5	3	8	
Benidoleig ..	80	1869	7	4	1	5	
Gata	440	1860	8	3	1	4	
Jalon	560	1867	8	2	1	3	
Denia	650	17—	—	3	1	4	
Oudara ..	325	1862	7	2	1	3	
Tounos	80	1860	10	2	1	3	
Beniarbeig ..	130	1871	6	3	—	3	
Sanet	90	1884	3	1	1	2	
Alcahali ..	98	1870	6	2	—	2	
Jaica	320	—	—	2	1	3	
Benichembra	120	1872	3	1	—	1	
—	—	—	285	114	40	154	—

The towns enumerated in the above table are contained within an area of twenty-four square miles, some of them being situated close together, and some (such as Pego, Laguart, and Alcahali) being isolated to the extent of a two hours' walk.

An examination of this table shows that the proportion of lepers in the towns bears no proportion to the number of the inhabitants. I am assured by the Spanish gentleman to whom I am indebted for a translation of the passages of the report that they are all situated near each other, and that the same hygienic conditions apply to them all. There is nothing in the soil, occupation, food, or race to account for any difference in the number of lepers which are to be found in these towns respectively. It also shows that the proportion of lepers to the population of the towns is not connected with the length of time that the disease has lasted, and therefore is not in relation to the opportunities given by heredity, even if it were assumed that heredity was a cause. Parcent, which is the most striking example, shows in twenty-seven years, in a population of 150 inhabitants, 65 cases of leprosy, of whom 28 were living at the end of that period; whilst Pego, with 1200 inhabitants, and where the disease has lasted since last century, had only 20 living lepers. Pedreguer, in which we know there was leprosy in 1809, with a population of 720, had in about forty years 79 lepers, of whom 12 were living at the date of the report; whilst Murla, with only 120 inhabitants, had had 14 cases in seventeen years, of whom 10 were living at the date of the report.

Excluding heredity as an insufficient cause of these cases, and as otherwise being discredited, the difference of the rate of increase of leprosy in these similarly situated villages is best explained by the assumption that the opportunities for contagion have been greater in some cases than in others, even if we did not have the statements which I have collected from two independent sources—namely, from the Mayor of Parcent, referred to by Dr. Zuriaga, and from Dr. Codina's report to the Director-General at Madrid. Another sad fact comes out from a study of this table—namely, that in many of the towns the appearance of the disease is comparatively recent and that in this part of Spain leprosy is spreading. The necessity for a hospital in Parcent seems to have been realised at last, for we find that a commission visited the neighbourhood in June, 1887, for the purpose of finding a site, and were offered one by the municipal corporation free of cost.

The above abstract is sufficient to show that Dr. Codina has entirely confirmed what has been written by Dr. Zuriaga, although in his report the history of contagion from one person to another is not continued in the same detail. I therefore recommend those who doubt that leprosy is contagious—and it appears there are many such doubters—to read Dr. Raymond's translation of Dr. Zuriaga's original paper or the summary of it which I have given in my book.

Queen Anne-street, W.

THE

TREATMENT OF "ATTIC" SUPPURATION BY EXCISION OF THE MEMBRANA TYMPANI AND AUDITORY OSSICLES.[1]

BY WILLIAM MILLIGAN, M.B., C.M.,

ASSISTANT SURGEON TO THE MANCHESTER INSTITUTION FOR DISEASES OF THE EAR, ASSISTANT PHYSICIAN TO THE MANCHESTER HOSPITAL FOR DISEASES OF THE THROAT.

THE region of the middle ear, known as the tympanic attic, is the space lying above the level of the short process of the malleus. The boundaries are, externally, the flaccid membrane and the outer osseous wall of the drum cavity; internally, the malleus, neck and head, and the anvil; above the superior ligament of the malleus; and below the short process of the malleus. This region is divided by numerous folds of mucous membrane into spaces of varying size, which, although of comparatively small importance anatomically, are most important from a pathological point of view. On account of the want of free communication between these several spaces, great difficulty is encountered in thoroughly cleansing this region when diseased. The spaces are partly closed, partly communicate with one another, and with the remaining portion of the tympanic cavity. Retention of secretion is favoured by the mechanical arrangement of the parts, with the result that caries of the head of the malleus and of the incus or of the surrounding bony parietes is common. Suppuration here is also frequently associated with other lesions—for example, with extensive perforations in other parts of the membrana tympani, with luxations of the ossicular joints, and with disease of the mastoid antrum. The frequency with which suppurative inflammation is found in the tympanic attic is variously stated by different authors. Randall, in an analysis of 500 cases, found attic suppuration present fifteen times; in another analysis of 2000 cases he found it present fifty times. In 375 cases which I have analysed I have found it present twelve times, or in 3½ per cent. of the cases. There is no doubt that it is one of the rarer forms of middle ear disease; but I am inclined to think that its frequency has been underestimated rather than the reverse. Although not of common origin, its importance demands careful consideration.

As regards the etiology of this condition, it has for long been a vexed question as to how suppurative inflammation localises itself in the cells lying behind Shrapnell's membrane. Walb[2] holds that the inflammatory process is propagated along the external auditory meatus. He believes either that an otitis externa circumscripta has affected the point between the membrana flaccida and the wall of the external meatus, or that an otitis externa diffusa has encroached upon Shrapnell's membrane, or that a disease of the external ear accompanied by secretion has produced an infection of the tympanic cavity inside the membrana flaccida through the foramen Rivini. He believes in the existence of this foramen. Most authors, however, hold that the affection is of "tubal" origin, and secondary to pharyngeal or naso-pharyngeal disease. Primary acute inflammation involving Shrapnell's cells is rare. The majority of cases run a chronic course, and, either from the frequent occurrence of a second perforation in a different part of the membrana tympani or from their clinical history, suggest the tubal origin of the disease. Thus it is not uncommon to find an open perforation in Shrapnell's membrane and a cicatrised perforation in some other portion of the drumhead, indicating probably that originally the whole middle ear had been involved, but that, whereas the suppuration had either been cured or had spontaneously ceased in the lower portion of the middle ear, it had remained persistent in the spaces lying behind the membrana flaccida. The fact that we have in this part of the ear a series of spaces not readily communicating with one another, and easily shut off from the general tympanic cavity by inflammatory adhesions, seems to me sufficient to explain how suppuration, if once established here, should tend to become chronic. Kretschmann[3] holds that the tympanic cavity is first involved, and following this the ossicles are attacked with caries owing to retention and decomposition of secretion. The analysis of clinical records also goes far to show that attic suppuration is a secondary affection. Schmiegelow,[4] in 37 cases, could find no immediate cause in 9; in 5 the affection came on during an acute inflammation of the nose and naso-pharynx, and in 4 it began apparently as an acute middle-ear catarrh; 12 patients referred the disease to childhood, but were unable to assign any definite cause; in 2 cases the affection followed scarlet fever, and in 2 cases a box upon the ear. In 12 cases which have recently come under my care, the disease was secondary to scarlet fever in 6, and to naso pharyngeal catarrh in 2. In the other 4 cases no definite cause could be assigned. To accept Walb's theory we are almost bound to admit the presence of the foramen Rivini, a foramen whose existence is denied by most anatomists. In those cases where the disease has lasted a long time, and its course is usually very chronic, the ossicles, although apparently healthy, will frequently be found diseased. Careful exploration with a fine probe will reveal carious spots unnoticed during inspection. The surrounding bony parietes are also often affected. Inflammation of the tympanic mucous membrane leads rapidly to caries as the mucous coat serves also as the periosteal lining. The intimate relations existing between the temporal diploic veins and the cerebral sinuses make bone disease here a serious complication. Of the three ossicles the incus is the one most frequently found diseased.

[1] A paper read before the Manchester Medical Society, Nov. 4th, 1891.

[2] Archiv für Ohrenheilkunde, Bd. xxvi., p. 202.

[3] Ibid., Bd. xxv., p. 165.

[4] Archives of Otology, vol. xx., No. 3, 1891.

Ludwig,[5] in 32 cases of hammer-anvil extraction, found the incus carious in 11, or 34 per cent., both malleus and incus in 16, or 50 per cent.; the incus was thus carious in 27, or 84 per cent. of the cases. The stapes is seldom affected.[6] When it is, the disease is usually confined to its arms. The foot-plate having a more intimate blood-supply escapes. The incus unfortunately is frequently not to be detected by the eye or the probe, and hence disease here is not to be diagnosed with certainty. Yet according to some authors disease of this ossicle is frequently the cause of keeping up suppuration. Some surgeons accordingly advise that the two ossicles—the malleus and the incus—should always be removed together.

The treatment of "attic" suppuration is at all times tedious. In fact, no cases of ear disease tax the resources of the surgeon and the patience of the patient so much as do these cases. The importance of thorough eradication of the disease is, however, at once evident when we recollect the relation of this space to the base of the brain, the mastoid antrum, and the lateral sinus. The ordinary methods of treatment by the use of lotions, caustic applications, and the insufflation of various powders will generally be found insufficient, as the source of the disease is seldom reached by any of these means. Thorough irrigation of the attic by means of Hartmann's cannula or Blake's syringe may at times be successful, but the method is tedious and uncertain. Solutions of corrosive sublimate (1 in 2000), resorcin (2–3 per cent.), or peroxide of hydrogen may be used for this purpose. Schubert,[7] however, finds that irrigations into the tympanic attic are in general unsatisfactory. The question of excising one or more of the diseased ossicles and the remaining portions of the membrana tympani was first proposed by Schwartze, and has since been frequently accomplished. The indications for the operation are: (1) chronic purulency of the middle ear, with caries of the ossicles, and (2) the presence of cholesteatomata in the drum cavity. In those cases where carious spots are found in the walls of the middle or external ear careful scraping must at the same time be resorted to. The main points to keep in view are: (1) the thorough removal of all foci of disease, and (2) the establishment of free drainage. The results of the operation are gratifying. Ludwig,[8] in 32 cases operated upon, found suppuration ceased in 20 cases, with regeneration of the membrana tympani five times, without regeneration of the membrane fifteen times. Eleven cases at the time of writing were still under treatment; 1 case had died, but not in consequence of the operation. Burnett[9] records a case of chronic purulency of six years' standing which had resisted all the ordinary methods of treatment. He excised the malleus and the membrana tympani, with the result that the purulent discharge ceased and the hearing power improved. Sexton[10] strongly advises this operation. He records 29 cases where this method of procedure was adopted. Colles[11] relates 13 cases with 8 cures, and 5 in which there was great improvement in hearing, in freedom from earache, tinnitus, and vertigo. Wetzel, Rheinhardt, Kessel, and others also endorse the value of this operation. I have lately had the opportunity of performing this operation four times, in each case with complete cure of the purulency, and in all with subsequent improvement in the hearing power. To perform the operation a strong light is essential. Some surgeons prefer the electric photophore of Trouvé, worn upon the forehead; others prefer Sexton's electric lamp. The ordinary forehead-mirror reflecting the light from a good lime-light apparatus answers every possible requirement. A general anæsthetic is essential. Previous to the operation, the ear should be carefully irrigated with warm carbolic or boracic lotion several times daily. The auricle should be cleaned with turpentine or ether, and kept covered with a carbolised towel. In order to minimise hæmorrhage from the incisions, a 20 per cent. solution of cocaine kept in the external meatus for five minutes previous to operating will be found useful. If the membrana vibrans be intact, which it very rarely is in these cases, a circular incision should be made $\frac{1}{16}$th of an inch from its attachment to the tympanic ring. The tendon of the tensor tympanic muscle is then to be cut close to its insertion into the long process of the malleus. The superior ligament of the malleus is then divided. A curved knife must now be passed, and the ligaments connecting the malleo-incudal joint severed. The malleus will now be free, and may be removed by means of forceps or by the snare. If the incus is also to be removed, it must be drawn down by a fine hook—e.g., that of Kretschmann, Ludwig, or Ferrer,—and the ligaments uniting it to the stapes severed. The ear should then be irrigated with warm boracic lotion and carefully dried. Finely pulverised iodoform should be insufflated into the ear, and the meatus lightly packed with iodoform wool. Slight oozing is apt to follow the operation for the first few days. If the dressings become moist they must be changed. The drier the parts are kept the quicker is the process of repair. In each of the following four cases the malleus alone was removed.

CASE 1.—E. B——, female aged twenty-four, suffered from an attack of scarlet fever eight years ago. During the fever the right middle ear was attacked by suppurative inflammation, and has since then continued discharging. At times the discharge was very fetid, and at times streaked with blood. The patient has been subject to frequent attacks of vertigo, tinnitus, and pain in the ear. The hearing power had gradually become worse and worse. On presenting herself for examination it was found to be $\frac{1}{10}$ of the normal, as tested by the watch. A large, soft, gelatinous polypus was found growing from the upper portion of the tympanic cavity, and protruding through a perforation in Schrapnell's membrane. On being removed the malleus was carefully examined with the probe, and found carious. Injections into the tympanic attic with Hartmann's cannula were first of all made, but without in any way influencing the course of the disease. It was accordingly decided to remove the diseased ossicle and the remaining portion of the membrana tympani. The operation was carried out as previously described. Slight discharge of pus was found in the meatus twelve hours after the operation. The dressings were accordingly changed, and the ear packed lightly with iodoform powder. Since then the ear has remained dry. Ten months after the operation the following condition was found. Springing from the fringe of membrane originally left was a new membrane of a dull, opaque, lustreless appearance. The attacks of pain and vertigo had entirely subsided, and the hearing power, which previous to the operation had been $\frac{1}{10}$ of the normal, was $\frac{2}{10}$. For conversation the hearing had also decidely improved.

CASE 2.—M. W——, female aged thirty-four, had suffered since childhood from purulent middle-ear disease on the left side. Recurrent attacks of pain were frequent, and the discharge was at times very fetid. The hearing power had been considerably damaged, measuring only $\frac{1}{10}$ of the normal. On examination a large, soft polypus was found protruding through the upper part of the membrana tympani. The superior and posterior walls of the tympanic attic and the posterior wall of the external meatus were found carious. The head of the malleus was embedded in soft granulations. It was decided (1) to remove the polypus, (2) to remove the diseased ossicle, and (3) to scrape the diseased bony parietes. The operation was conducted as in the previous case. The process of repair went on uninterruptedly, and now, seven months after the operation, a new membrane has formed and the hearing power has improved wonderfully, measuring $\frac{8}{10}$ of the normal, or practically perfect hearing power.

CASE 3.—M. M——, female aged twenty-six, had suffered from purulent disease of the right middle ear for twenty-one months. There had been previous disease of this ear during childhood, and the patient was unable to state definitely if the discharge had ever really ceased. On the left membrana tympani a cicatrised perforation was found. Constant tinnitus and occasional severe pain were felt upon the right side of the head. On examination the right membrane was found almost completely destroyed. The long process of the malleus was seen hanging free in the meatus, and the short process was embedded in granulations. Local applications of various kinds having failed to arrest the suppuration, the malleus was excised, and the tympanic attic thus freely opened up. Three days after the operation the dressings were changed. Since that time, now eight months ago, there has been no suppuration; the pain and the tinnitus have ceased, and the hearing power has improved. Previous to operation it was $\frac{1}{10}$ of the normal. At the last examination it had improved to $\frac{9}{10}$, or a gain of 18 in. A new membrane is in process of formation.

CASE 4.—E. M——, female aged six, had a severe attack of typhoid fever fifteen months ago. During the fever both

[5] Archiv für Ohrenheilkunde, Bd. xxix., p. 241.
[6] Schwartze: Die Chirurg. Krankheiten des Ohres, p. 389.
[7] Archiv für Ohrenheilkunde, Bd. xxx., May, 1890.
[8] Ibid., Bd. xxix., March, 1890.
[9] Transactions of the American Otological Society, 1890.
[10] Diseases of the Ear.
[11] Deutsche Med. Wochensch., No. 28, 1889.

middle ears were attacked by suppurative inflammation, and since then have discharged freely, especially the right ear. Pain has been occasional, especially on the child's taking any fresh cold. On examination both membranes were found extensively destroyed. On the right side the long process of the malleus had been almost entirely eaten away by the disease, and the remaining portion was bare and eroded. The ossicle was accordingly removed under chloroform, as in the previous cases, and the tympanic attic carefully cleansed. A considerable serous oozing followed for several days. At the end of a week, however, the ear was perfectly dry, and has remained so since. The operation was done four months ago, but as yet there are no signs of any regeneration of the membrane. In this case I have no accurate record of the hearing power previous to operation, as the child gave most unreliable answers, but judging from the mother's statements there seems to be some material improvement.

In considering the advisability of removing diseased ossicles it must be borne in mind that anything which tends to keep up suppuration from the ear is a source of danger not only to the hearing but also to the life of the patient. Absorption of putrid pus may take place into the systemic circulation, and set up general pyæmic symptoms, or the formation of localised abscesses in the cerebrum, the cerebellum, or the lungs. It becomes, I think, the duty of the surgeon to free the patient from this possible source of danger regardless, one might almost say, of the effect the operation may have upon the hearing power. The result "quoad vitam" should be more highly valued than "quoad functionem." It must be remembered also that in many of these cases of attic suppuration with perforation of the flaccid membrane the hearing power is by no means very poor. The results of the operation, however, show that the hearing power may improve in a remarkable way in many cases. In Ludwig's[12] analysis of 32 cases the hearing power was decidedly improved in 16, remained as before in 9, and was impaired in 3 cases; 4 cases did not undergo a re-examination. In my 4 cases there was improvement in all, especially in the second case. It must be borne in mind that the operation is not altogether free from risks. There is a danger of wounding the chorda tympani nerve in its passage through the middle ear. This accident happened in my first case, and was followed by some defect in taste for a few days. No special regard, however, need be paid to this accident, as the disturbance of taste is merely a temporary phenomenon. Facial paralysis may occur as the result of the operation. In 2 recorded cases in which this accident did occur, it disappeared after treatment by electricity. With due care these accidents may be avoided, and the operation will in most cases be found eminently successful.

Manchester.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

WESTMINSTER HOSPITAL.

SURGICAL CASES.

(Under the care of Mr. COWELL.)

THESE cases are illustrative of two of the rarer kinds of injuries met with in our casualty departments. The first, an incomplete dislocation of the foot at the calcaneo- and scapho-astragaloid joints, is one of the least common of the displacements of the foot; and although described in the text-books this account will bring more forcibly under the notice of our readers the signs which are found. The second case shows the occasional effect of machinery-amputation of part of a finger with rupture of the attachment of the tendon to the muscle, and not at the point of injury. This result of this kind of damage is illustrated in Erichsen's Surgery by plates taken from Morand's paper on the subject. A specimen of similar character was shown at the Pathological Society, in which, however, the tendon had been divided with the terminal phalanx of the thumb, and the nerves had been ruptured some inches from the wound.

[12] Archiv für Ohrenheilkunde, Bd. xxix., p. 241.

Subastragaloid dislocation of the foot. (Reported by Mr. Powell, surgical registrar.)—G. R——, aged thirty-seven, a police sergeant, was admitted on Feb. 21st, 1891, with an outward dislocation of the right foot. He was ascending the steps of an omnibus, and when near the top slipped off, owing to the unexpected starting of the horses. He did not lose hold of the rails, but his feet came violently into contact with the ground, the hands sliding along the rail. Curiously, the foot (left) which first came in contact with the ground was uninjured, but the right sustained the rare accident above mentioned. The signs were obvious and the diagnosis easy. The foot was turned outwards with eversion, the external malleolus sinking into the hollow thus formed. The astragalus was in proper relation with the leg bones, but over its head the skin of the foot was very tightly stretched, so that its outline could be made out with great clearness. The scaphoid bone was drawn slightly beneath the outer part of the head of the astragalus, thus shortening the pre-malleolar portion of the foot. Mr. Cowell happened to enter the hospital a few minutes after the admission of the patient, and no time was lost in giving him an anæsthetic, when reduction was easily effected. Side splints with a foot piece were immediately applied. There was subsequently little swelling, although there was considerable ecchymosis. A week later a plaster-of-Paris case was applied to the ankle, and the patient was allowed to go home on March 5th, twelve days after the accident. He showed himself occasionally, and the plaster case was removed seven weeks later. The patient made an excellent recovery. Mr. Cowell remarked that the majority of the cases of subastragalold dislocation which had been reported had been in the direction inwards. This was a good example of the outward dislocation, and if the joint had given way above the astragalus the case would have been one of the ordinary Pott's fracture.

Avulsion of the terminal phalanx of the right thumb with the whole of the tendon and a portion of the muscular substance of the flexor longus pollicis attached. (Reported by Mr. Green, house surgeon.)—S. S——, an electrical engineer, aged nineteen, was admitted into Northumberland ward under Mr. Cowell on Dec. 17th, 1891. At 1 P.M. the patient was engaged in freeing a rope which had become entangled in a revolving shaft driven by straps, when his right thumb got caught in the rope, and the terminal phalanx, with the whole of the tendon and a portion of the muscular substance of the flexor longus pollicis attached, was torn away. The patient felt very little pain at the time of the accident, and did not faint or lose much blood. He came to the surgery about 1.20 P.M. suffering from the effects of shock, and was admitted at once, the arm being put in a boracic arm-bath. It was subsequently dressed with dry dressing, the forearm being thickly padded with wool over the origin of the muscle, and bandaged to a splint with thumb- and hand-piece. The temperature on admission was 99·4°, and did not rise above that point. There was no swelling at the point of laceration of the muscle.

On Dec. 27th the patient left the hospital with the wound granulating healthily. The tendon was eleven inches and a half in length, and to the upper six inches and a half muscular fibres were attached. The terminal phalanx was torn away at the joint; the skin, though jagged and uneven, was sufficient for the stump without surgical interference.

ROYAL INFIRMARY, NEWCASTLE.

A CASE OF POISONING BY BICHROMATE OF POTASH.

(Under the care of Dr. PHILIPSON.)

THIS substance, bichromate of potash, is so rarely taken, either by accident or design, that the account of a case in which a large amount of the drug was ingested, and in which the bad effects were successfully treated, is of unusual importance. Experiments on animals show that it possesses strong irritant properties, and a dose of two drachms has been known to prove fatal in the adult. In a case recorded by Mr. J. Stewart of Preston, a woman took a large dose of the bichromate dissolved in water, and died forty minutes afterwards. She became rapidly unconscious, with collapse,

purging, and vomiting; from the first the respiratory centre was markedly affected, and she appeared to die from respiratory failure. The appearances found on post-mortem examination were those produced by a corrosive poison. For the notes of this case we are indebted to Mr. W. Turnbull, acting house physician.

R. H——, aged forty-eight, labourer, was admitted into the Royal Infirmary, Newcastle-on-Tyne, under the care of Dr. Philipson, at eight o'clock on the evening of Sept. 11th, 1891, stating that he had swallowed a quantity of fluid used by cabinet-makers for purposes of staining furniture, and technically termed "red crystal." Having elicited from the patient the fact that the solution was prepared by dissolving a salt in water as well as a rather vague description of the salt itself, it was deemed probable that the poison employed was bichromate of potash. The patient occasionally worked for a master joiner in this city, and on the day in question, whilst in the workshop, he had partaken of the poison under the impression that it was cold tea, some of which stood in a can very similar in appearance to that out of which he drank. He shortly afterwards complained of the bitter taste remaining in his mouth, and on being questioned by his master as to which vessel he had used, the nature of his error became immediately apparent. As soon as it could be procured, about ten ounces of a solution of common salt were given to him, and with the idea of still further promoting or facilitating emesis he ate very freely some fat bacon which happened to be in the workshop at the time. This occurred at 6.45 P.M., and between that hour and his arrival at the hospital the symptoms had been as follows: An intermittent burning sensation over the gastric region, constant desire to vomit but inability to do so, and a general feeling of great bodily prostration; the bowels had also been opened twice.

On admission, beyond the fact that the man kept constantly moaning, but more from fear than from actual bodily suffering, and that the pupils were slightly less than normal, there were no obvious features in the case, either subjective or objective. The pulse was 80 and the respiration normal. Acting on the supposition already arrived at, the case was treated as one of irritant poisoning: the stomach pump was used, but only a small quantity of a viscid, frothy fluid was thus discharged, which, when treated with lead acetate, gave a slight yellow colouration. White of egg was next administered and the patient put to bed, warm bottles placed at the feet, copious draughts of milk, in which magnesium carbonate was suspended, being given internally. He now began to vomit very frequently and freely, some of the ejected matters being streaked with blood, but no other unusual features were noticeable in his condition until 9.30 P.M., when he complained of intense thirst, continuous burning sensation in the mouth and fauces and over the stomach; there was also decided tenderness detected on palpation of the latter area. Half an hour later these symptoms were further added to by a prolonged rigor. The temperature, which had previously been quite normal, quickly rose to 103°, the pulse at the wrist was almost imperceptible, and could not be accurately counted. He was given half an ounce of whisky, ice to suck, and milk with the addition of an equal part of soda-water. About 10.15 P.M. there ensued agonising cramps in the legs, which, commencing in the foot, passed up the thighs, but were of greatest severity in the calves of both legs; the arms were similarly but less markedly involved. Diarrhœa and an augmentation of the other symptoms—viz., vomiting, hæmatemesis, and cramps—serve to characterise the subsequent acute stage of the case. At 6 A.M. on the 12th the use of the magnesium carbonate was discontinued. At 8 A.M. an enema of starch and opium was injected, and this had the effect of allaying the tenesmus and diarrhœa. At 9 A.M. a mixture containing bismuth, opium, and sodium bicarbonate was ordered to be given every four hours. When seen by Dr. Philipson at 10 A.M., although the vomiting was less severe and distressing, the condition of the patient was yet eminently precarious, and justified the unfavourable prognosis given. Pulse 140; respiration 48; temperature 100°. Patient slept for about an hour in the afternoon. There was now a gradual cessation of all the symptoms, and in the evening thirst, faucial pain, and abdominal tenderness alone remained. Pulse 93; respiration 33; temperature 98°.

Sunday, Sept. 13th.—Morning: temperature normal; pulse 80; respiration 21. Evening: temperature normal; pulse 78; respiration 18. During the next three days the patient was only allowed milk or milk and soda-water. Recovery was very rapid, and a week later he left the hospital quite convalescent. Some of the liquid similar to that which he had swallowed was obtained from the workshop, and this when treated with lead acetate and silver nitrate gave the respective yellow and chocolate precipitates indicative of bichromate of potash.

As regards the amount of poison ingested, it was ascertained that the solution is made by dissolving one ounce of the salt in sixteen ounces of water, and as his master stated that the man had drunk not less than ten ounces of the fluid, he had therefore taken about 273 grains of the solid salt.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Tetanus as a Complication of Ovariotomy.

AN ordinary meeting of this Society was held on Jan. 12th, the President, Mr. TIMOTHY HOLMES, in the chair.

Dr. JOHN PHILLIPS communicated a paper on Tetanus as a Complication of Ovariotomy. After calling attention to contributions on this complication by Parvin and Olshausen, he related a case of the kind occurring in his own practice. The results of eighty-one inquiries addressed to various university professors in Europe, and sixty-seven in the British Isles, were given in the form of charts, and complete details of sixty-four cases were furnished. Many operators were found to have met with more than one case. The author, under these circumstances, had endeavoured to find out the reasons by tracing out the sites of operation, times of year, and the general surroundings of the cases. The various theories of the production of tetanus were discussed, and the possible complications in the operation and after-treatment which might be conducive to its onset. Allusion was made to recent bacteriological discoveries on the subject of the tetanus bacillus. A plan of treatment was recommended in consistence with these, and local treatment was thought to be of the first importance. He concluded: 1. That the operation of ovariotomy had elements in it which were conducive to production of tetanus by nerve irritation—i.e., tearing of adhesions and ligature of pedicle; but that tetanus in these cases did not deviate from the usual series of symptoms which were observed when it complicated other surgical operations. 2. That although some cases of tetanus arose *de novo*, and without necessarily the presence of sepsis, yet the usual manner of spreading was by contagion, and was aided by sepsis. 3. That although the "garden-mould" theory of causation was not established, yet that there was sufficient evidence to recommend avoidance of operating in a room recently plastered or situated near lately disturbed garden mould. 4. That on the first symptoms of tetanus arising, a strict local search should be made for irritating cause before proceeding to general treatment. 5. The folding over of a broad pedicle, which had already been ligatured, and then applying a second ligature, was not to be recommended. 6. That the only means of disinfecting instruments was by boiling them for at least an hour.

Mr. DORAN said that four of the cases which had been tabulated were not ovariotomies in the sense in which that word was commonly used. One was an oöphorectomy for fibroid, and if this condition was accompanied by menorrhagia the nerve shock after operating was usually very great. Another of the cases was a small myoma of the fundus uteri, with chronic ovaritis; a third case was one of removal of diseased tube; while in a fourth it was stated that the ovaries were indistinguishable, and it was really an incomplete operation for fibroid. As to the causation of tetanus, he had assisted altogether at 1287 abdominal sections, and had only twice encountered tetanus. One was Mr. Thornton's case, already published, where the operation was done in a windy farmhouse, and another was a case of Dr. Bantock's; the weather was changeable between frost and thaw, and it was windy. The patient one day complained of a draught on the cheek, and this was the beginning of the attack of tetanus. Statistics from abroad were not of much value till recently, for the nursing, as a rule, had been so extremely unsatisfactory. Looking over the cases which had been tabulated,

he observed that in one case the pedicle had been much pulled about, and this, he thought, might be a provocative cause. In other instances the omentum had been a good deal handled, but the latter would certainly not produce tetanus, for extensive adhesions of the omentum were being detached every day. A large number of women in the upper classes suffered wearying pains if they got a little flatulence or at the end of micturition; this was usually due to an adhesion of omentum to the pelvic organs. He would sum up the three principal causes of tetanus as meddling with the pedicle, draughts, and careless nursing.

Sir GEORGE HUMPHRY expressed his gratitude to the author for the careful way in which he had put the cases together. The first case which he himself had witnessed was in 1855, before the days of clamps and of antiseptic treatment. The case was an ordinary one, and on the eighth day he took his leave of the patient, as the wound had nearly healed. The same evening tetanus commenced and went on rapidly to a fatal termination. Another case was that of a lady aged fifty-seven, and though he had not actually operated he saw a good deal of the case; it was treated in the modern fashion by the intra-peritoneal ligature. The wound healed on the eighth day, and then symptoms of tetanus developed, the patient dying within twenty-four hours. In this last case antiseptic precautions were taken. Both these patients had perhaps been kept on too low a diet, and this may have predisposed to the development of tetanus. A good many cases of this affection had been under his own care, and he confessed himself unable to come to any conclusion as to the reason of the development of the attack in in any one of them. The original injury had for the most part been very trivial, such as the lash of a whip on the face &c. He had seen only one result from a cut between the thumb and forefinger, and he did not believe that there was any substantial ground for the common impression that an injury in this region was a fertile source of tetanus. He had seen nothing to suggest that garden mould might be a cause of tetanus, nor did he think that pulling about a wound ministered to its occurrence. He had never seen it follow when it might be most expected, such as after a badly lacerated wound with much damage to nerves &c.; but in all the cases it had supervened when one had no idea that such a result would happen. He had tried every variety of treatment, and he thought they all did more harm than good. He had kept the patient under chloroform for long periods, and this, together with morphia and other remedies, he thought was valueless; chloral and quinine perhaps did a little good. The sheet anchor of treatment was food, and when they could not swallow they always died. An infant, from the back of whose neck he removed a fatty tumour, developed a smart attack of tetanus, but it went on taking its milk well, and it ultimately recovered. He felt that the real nature of the disease was a blood poison, and that that was fast becoming the prevalent opinion. Perhaps something in the shape of an antitoxin might shortly be discovered to combat the poison.

Mr. HULKE, after referring to the uncertain opinions which had prevailed until recently as to the nature of this affection, thought that there was now ample evidence in favour of its being a specific infective condition. Dr. Phillips seemed to attribute it to a mechanical irritation, and at the same time he referred less confidently to the bacillary theory of its origin. The facts were that a bacillus easily recognisable had been discovered in tetanus; that pure cultures of this had been obtained and had been injected into test animals, with the result that tetanus was produced. Bacilli taken from human beings dead of tetanus had likewise produced tetanus in animals. These facts were so convincing that for him all other views fell to the ground. The long period of latency was curious, but the same thing was seen in hydrophobia. He related some cases which had come under his notice. In one a girl who was suffering from tetanus was said to have no wound or external injury, but over the left kidney was seen a healed scar, and from beneath it a large rough, ragged splinter of dirty wood was extracted. In another case there was a healed scar of the eyelid and conjunctiva, and at the back of the orbit was a nest of splinters of dirty wood. The poison seemed in this manner to lie dormant till some condition of the surrounding tissue permitted it to light up. He had tried nerve-section, nerve-stretching, amputation, eserine, &c., and he agreed that simple feeding seemed to be the best treatment; in the acute cases certainly nothing could be done. The last case that had come under his notice was that of a carpenter who had pricked his foot with a dirty nail. Carbolic acid was injected locally without result. He died, and from his blood a chemical substance was isolated, which he understood had produced symptoms of tetanus in animals.

Mr. LOCKWOOD felt that the last speaker had struck the true note, and that tetanus had taken a new position since Kitasato had separated the poison four years ago. He thought that it might be gathered from many of Dr. Phillips's remarks that sepsis as sepsis might produce tetanus; but it should be remembered that the bacillus of tetanus was constantly found with pus, and it speedily died in the presence of oxygen. It was an infective disease, the poison could be carried by dust, and this fact rendered the cases intelligible in which it was stated that draughts appeared to act as a cause. In one case he had investigated no bacilli were found in the tissues at the seat of inoculation. The spinal cord and arachnoid appeared to give better results for the purpose of inoculation than other tissues, and this affinity of the poison for nervous tissues explained many of the clinical symptoms. A spinal cord need not be fresh to give a pure culture, and as the tetanus bacillus would stand a high degree of heat, all instruments, in order to be thoroughly disinfected, should be boiled for some considerable time. He felt sure that the disease was never due to anything else but infection, and usually by means of earth. In one case the wound was inflicted by a stick when the child was playing in a garden; the earth of that garden inoculated under the skin of mice produced tetanus. He knew of two other cases in which the wounds had been caused by wood smeared with earth. He had tried treatment by oxygen inhalation; this ameliorated the spasms, but produced no other result.

Mr. MACNAMARA said that in Calcutta formerly tetanus was extremely prevalent, and it was observed to be most common under certain conditions of wind and temperature, especially a sudden fall of temperature with an east wind; the same influences had been observed to affect the spread of cholera and malaria. Since the introduction of antiseptic treatment in Lower Bengal the number of cases had remarkably diminished. He agreed in the importance of feeding, especially in the more chronic cases, and advocated the administration of full doses of chloral and bromide every evening in order to procure sleep.

Dr. PHILLIPS, in reply, said that his object was to collect all cases in which the ovaries had been removed, whether they were diseased or not. He felt that there was something in the theory that garden mould was indirectly causative of the disease, and believed that the only method of disinfecting instruments was by boiling

MEDICAL SOCIETY OF LONDON.

Cerebral Hæmorrhage—Galvano-cautery for Prostatic Obstruction.

AN ordinary meeting of this Society was held on Jan. 11th, the President, Dr. Douglas Powell, in the chair.

Dr. T. CHURTON of Leeds read the notes of a case of Cerebral Hæmorrhage, and demonstrated the anatomical conditions present by morbid specimens. A woman aged fifty-eight was admitted into the Leeds Infirmary on Sept. 18th, 1891, for right hemiplegia and hemianæsthesia without aphasia. On the 15th she had felt a sudden numbness in the left leg, and in about half an hour numbness in the right leg, which quickly, with the arm and face, became partially paralysed. On the 25th it was found that the left foot was completely anæsthetic; the right foot was then sensitive, a pinch producing exclamation and movement. She was quite conscious. There were signs of femoral phlebitis on the right side; the thigh was distinctly larger than the left. Reflexes: Plantar, slight on right, very brisk on left; patellar, sluggish on right, well marked on left. No ankle clonus. Hæmoptysis and other signs of pulmonary phlebitis appeared; the patient died on Oct. 2nd. A clot was found in the outer part of the left optic thalamus and fibres outside it; a quite dry, dark-red clot of the size of a walnut in the posterior horn of the left lateral ventricle, which was otherwise perfectly normal; no erosion of its surface and no staining; a dark clot in the right calloso-marginal fissure, overlying and slightly eroding the hinder part of

the gyrus fornicatus. The arteries were rather atheromatous. The brain was shown, with photographs, kindly taken by Dr. Turner at the Neuro-pathological laboratory of King's College. The bearing of this case upon the localisation of tactile sensibility in the brain was discussed, and it was shown that there were no local conditions which could have caused the anæsthesia of the left foot. The right thigh, hand, and cheek were insensitive; left, sensitive. He discussed four points in the case: 1. The occurrence of hæmorrhage in two hemispheres almost simultaneously. 2. The association of femoral phlebitis. 3. The mode of formation of the dry clot in the left lateral ventricle. 4. The anæsthesia of the left foot, which appeared to be due to lesion of the right gyrus fornicatus rather than of the motor area, because (*a*) no paralysis of the foot was observed; (*b*) staining and slight erosion were seen upon the gyrus fornicatus, and none upon the convolutions above the clot; (*c*) in a case (published by himself) of tuberculosis of the same motor area, causing rhythmic muscular movements, there was no pain or other observed sensory disorder.—The PRESIDENT inquired if the vessels in this case had been found to be notably diseased. The presence of phlebitis in so many directions was remarkable. He asked what was considered to be the connexion between the phlebitis and the cerebral hæmorrhage, and if the latter condition had been produced through the former by way of embolism.—Dr. TURNER said that the case, of interest to the general physician, was especially so to the neurologist. He knew of only one other case at all similar to it, which was recorded by Dr. Savill in the last number of *Brain*. It was that of an old man who had hemianæsthesia and trophic changes on the left side. He got better of this, and then three years later he had another attack, of which he died. At the post-mortem examination a cyst was found in the right gyrus fornicatus, extending into the quadrate lobule. Both these cases corroborated the conclusions which had already been arrived at as the result of experiments on monkeys—namely, that if the falciform lobe were destroyed, anæsthesia of the opposite side would ensue. Munck and others abroad held that the Rolandic area comprised the centres of common sensibility, while Ferrier and others in this country maintained that common sensation had a special centre in the falciform lobe. The case related certainly strongly supported the latter view. In the case of Dr. Savill trophic changes had been noted, but they were not present in the instance under discussion.—Dr. CHURTON, in reply, said that at the necropsy a clot was found in the right iliac vein. The left posterior tibial artery was examined and also the femoral, but nothing was found there to account for the anæsthesia of the foot, and the good condition of the superficial reflexes showed that the nerves had not been destroyed. He thought that the phlebitis and hæmorrhage were due to a common cause—the circulation of some irritant in the blood, which set up inflammation both in the arteries and veins; the headache was possibly to be accounted for in the same way. He had not noticed any trophic changes, but then the patient only lived three weeks from the onset of the disease. Judging by analogy from the spinal cord, he thought that trophic changes would be more likely to follow if the damage were to a part of the motor tract.

Dr. CHURTON likewise showed a patient in whom he had diagnosed the existence of a gumma, which extended from the middle of the pons Varolii to the lower part of the medulla oblongata on the right side. The patient had presented paralysis of all the nerves, from the fifth to the twelfth inclusive, but the motor part of the fifth had never been involved. There was marked atrophy of the left half of the tongue and of the left sterno-mastoid and trapezius. He was slowly but distinctly recovering from below upwards under treatment, the fifth nerve being now entirely cured and the seventh partially so. Two years ago he was quite well, and he then lost a large amount of blood from piles; he had had syphilis years ago, and the loss of blood, coupled with deprivation of food, had probably caused the gummatous inflammation to develop. The first symptom noticed was a loud tinnitus aurium, which disappeared after incising the membrana tympani. As soon as the incision healed the tinnitus reappeared; but a fresh incision, together with regular inflation of the Eustachian tube, had rid him again of this trouble.

Mr. BRUCE CLARKE read a paper on the Radical Cure of Prostatic Obstruction by the Galvano-cautery. After briefly discussing the various surgical procedures which had been recently employed for the relief of enlarged prostate, the writer pointed out that there were many slighter conditions which, while they did not merit so extensive an operation as supra-pubic removal involved, were yet quite as annoying and inconvenient to their possessors. Indeed, whether the prostate was very large or not, the actual obstructing portion of it was exceedingly small, and hence the success which might be obtained by the removal of only a small portion of a large mass. He then went on to describe the galvano-cautery of Bottini, and the method by which it was employed, as well as the general results which it yielded, after which notes were read of four cases which had been under his care. From these it appeared that out of four who had suffered from enlarged prostate for some time, and who came under his care with a considerable amount of residual urine in their bladders, all were able to micturate without difficulty, and only one of them had still any residual urine in his bladder. In other words, out of four patients so treated, three were absolutely cured, and had remained so for a period varying from three to six months after operation, and the remaining case was much better, and still improving.—The PRESIDENT asked if any disagreeable cicatricial results had followed, and whether the use of a catheter was necessary in consequence.—Mr. HURRY FENWICK said that he had used this method of treatment both at the London Hospital and at St. Peter's Hospital. He would discuss it under the heads of practicability and applicability. As to its practicability, it was very difficult to get the instrument to work, for it required such a powerful battery to heat it. Two large storage accumulators at least were necessary, and the Italian instrument was so short that it was not at all easy to get it into position. As to its applicability, in very few cases could it yield a good result. In one instance, after use of the instrument, he was obliged to cut down supra-pubically and shell out the middle lobe of the prostate. It was, indeed, only good for the ridge-like form of obstruction, which could be better treated by a perineal incision and division with a blunt knife. Statistics showed that 90 per cent. of the prostatic obstructions were due to middle lobe enlargement, which would not be reached by this instrument, while in only 10 per cent. was the bar obstruction present.—Mr. SWINFORD EDWARDS said that he had had no personal experience of this method, but it appeared to be a good one if it could restore natural micturition. He inquired of the author if he had tried electrolysis puncture through the rectum, which was said to cause shrinkage of the prostate. The cases seemed to have been well selected, for the urine was normal in all. He feared that this operation was likely to set up cystitis and inflammation spreading backwards. He himself had used a modified prostatome, which punched out a portion of the gland. He obtained an immediate good result, though the benefit was only temporary. The supra-pubic operation was undoubtedly a serious one, and as it was usually demanded in broken-down old men, it should never be lightly undertaken.—Mr. BUCKSTON BROWNE said that the ordinary prostatic case was usually such an exceedingly simple one to manage, that we should be very careful before we rushed to new methods of treatment. He regarded supra-pubic prostatectomy as dangerous, and only to be resorted to in extreme cases. He admitted, however, that there were indications for its employment. The operation of Bottini was enticing from its apparent simplicity, and was therefore apt to be employed in unsuitable cases. A man who had only just begun to use a catheter should certainly not be submitted to such an operation. The fourth case appeared to him to be one of bad stricture together with atony of the bladder; he thought it probable that after treatment of the stricture the bladder would have recovered power independently of Bottini's operation, and the good result therefore ought not to be credited to the latter. It should not be forgotten that it was quite possible for a man to regain power absolutely over his bladder after having lost it for a considerable time. He related an instance in which a gentleman, being unable to relieve his bladder, was left afterwards in a condition of retention for sixty hours. Three pints of urine were then drawn off, but for six months afterwards he could pass no urine except by catheter. He was now, however, able to empty the bladder entirely by natural effort. He agreed with Mr. Fenwick that the majority of cases of prostatic obstruction were due to middle lobe enlargement, for which this procedure would be of no avail; in such cases incision from the perineum or urethra

met with but trifling success.—Mr. CLARKE, in reply, said he had carefully selected his cases. He agreed that, in cases of middle lobe or of irregular enlargement, if any treatment beyond catheterism were indicated, then the supra-pubic operation should be done; but he had not of course advocated Bottini's method for these. One could not expect to get a good result unless the bladder were healthy, and he doubted if the operation were more dangerous than lithotrity in skilful hands. He admitted that an instrument requiring a lighter battery power could be constructed, and would be more convenient; but that did not touch the question of applicability of the method. He held that the question of frequency should not be decided by an appeal to museum specimens; the only statistics of value were those of the post-mortem room.

CLINICAL SOCIETY OF LONDON

Gout of Penis.—Trephining for Hæmorrhage from Middle Meningeal Artery.—Gastro-enterostomy and Jejunostomy.

AN ordinary meeting of the Society was held on Jan. 8th, the President, Sir Dyce Duckworth, in the chair.

The PRESIDENT first alluded in a few touching words to the loss the Society and the profession had sustained by the comparatively sudden decease of Mr. Berkeley Hill.

The report of the committee appointed to ascertain the period of incubation of various diseases was then presented and received.

Sir DYCE DUCKWORTH gave the clinical history of a case of Gout of the Penis. A man aged forty-two, a glass cutter, was admitted into St. Bartholomew's Hospital with gouty arthritis, involving several joints, including those of the great toes. There was moderate pyrexia. The patient had been discharged from a cavalry regiment twenty years previously on account of hernia. Since then he had led a sedentary life, and drank about two pints of beer daily. Sixteen years ago he suffered from lead colic, and was in St. Bartholomew's Hospital for treatment. He was occasionally subject to attacks of articular gout, and inherited the disease from his father. Five days before admission he was awakened by sudden pain in the right wrist and right great toe-joint. The following day he awoke with pain in, and firm erection of, the penis. This continued up to the time of admission. Three days later the left great toe-joint was attacked by gout. The various thoracic and abdominal organs were found healthy. The urine was acid, sp. gr. 1022, and void of albumen. The penis was erect and tense, distressingly painful and turgid. No points of hardness were found in its course. The testes were natural. There was no pain or swelling in the perineum. There was pyrexia, with a temperature varying from 99° to 102°. Aperients and salines with colchicum were administered, and a light diet. The priapism persisted steadily, uninfluenced by internal treatment, by sedative suppositories or lead and opium lotion. A cage had to be placed over the abdomen to prevent impact of the bedclothes. Micturition was painful, and soft catheters had to be passed. From time to time fresh articular attacks of gout occurred in various joints with slight rises of temperature. Priapism persisted for twenty-one days without intermission, and gradually subsided with general amendment of all the symptoms. The noteworthy points in the case were—first, the gouty inheritance; secondly, enforced sedentary habits, with exposure to lead impregnation, and the habitual drinking of beer. The extreme rarity of the case was commented on. While acute gouty inflammation was shown to be not infrequent in the bladder, prostate gland, and testes, gout of the body of the penis in this acute form was practically unknown, and the author had never heard of a similar case. The pathology was believed to be thrombosis of veins in the corpora cavernosa, with some inflammatory condition of the trabecular structure, return of blood being mechanically prevented during the blocked condition of the parts. Smaller thromboses of this nature had been previously noted, but not leading to painful persistent priapism, and entailing the presence of small knots readily perceptible in the body of the penis, which slowly or imperfectly disappeared. Priapism was sometimes met with in elderly men as the result of a very acid condition of the urine, and was readily removed by alkaline treatment. The author classified the condition described as amongst the rarer forms of gout, of which gouty parotitis was another example.—Dr. ORD thanked the author for the record of such a rare clinical condition, which in an acute form he had never met with.

Mr. BLAND SUTTON read notes of a case of Fracture of the Skull complicated with Hæmorrhage from the Middle Meningeal Artery in which trephining led to a successful result. The patient was conveyed to the Middlesex Hospital in an insensible condition, due to falling upon the pavement and striking his head when drunk. Soon after admission the right arm and leg became completely paralysed. From the history of the case Mr. Sutton came to the conclusion that there was an extravasation of the blood due to injury of the middle meningeal artery. Acting on this opinion, the left side of the skull was trephined. A very large clot of blood was found between the dura and the bone. In order to secure the torn artery it was necessary to remove bone freely. By means of an electric search light a fissure in the bone was found to run from the left limb of the lambdoid suture downwards into the tympanum and across the petrous portion of the temporal bone. At this spot the dura was lacerated and the sub-dural space opened. After the operation motor power returned in the paralysed limbs, cerebro-spinal fluid escaped during four days, but the patient quickly became conscious, and made an uneventful recovery.—Mr. CHARTERS SYMONDS said he had performed operations on three of these cases. The first of these had been already published in the Transactions, and was similar to that described in that the bleeding came from a deep source far forwards, necessitating the removal of much bone; the hæmorrhage was controlled by fixing forceps on the bleeding point. The case proved fatal from a limited meningitis round the site of operation, which he thought was due to prolonged exposure and to the use of the spray. Both his other cases terminated successfully. In one the patient, a man, was knocked down by the blow of a crane. He was at first quite conscious, and complained of intense intracranial pain. In an hour and a half he became unconscious, and had universal convulsions. He recovered after trephining. The last case was that of a boy who was brought into the hospital after an accident to the head. He was quite sensible, but in the course of two hours became unconscious, and almost dead. Artificial respiration was carried on, the skull being trephined meanwhile. He soon rallied, and afterwards made a good recovery. During the operation compression of the carotid was practised, and continued for four hours afterwards; this materially checked the hæmorrhage.—Mr. GODLEE said he had operated on three or more cases, and he had seen several. None of those he had dealt with had been successful, and the reason for this was that they were usually left so long before operation that the cerebral tissue had lost its power of expansion after removal of the clot. His opinion was that instances of this lesion were not very rare.—Mr. SUTTON, in reply, said that when he removed the clot the dura and brain were nearly an inch and a half from the surface, but twelve hours afterwards complete expansion had taken place.

Mr. BOWREMAN JESSETT gave the details of five cases on which he had performed Gastro-enterostomy for pyloric carcinoma, and two cases of Jejunostomy on patients who were suffering from carcinoma of the cardiac end of the stomach. Of the five cases of gastro-enterostomy, three had recovered. One case which was shown at the Society in April, 1891, and on whom the operation had been performed in April, 1890, was well at the date of reading the paper, and able to eat and digest ordinary food. A second case which had been operated on fifteen months ago was also well. In neither of these cases had the disease materially increased in size. The third case died nine months after the operation, having lived in comparative comfort until the time of her death. Of the two cases which had died, one succumbed because feeding had not been begun early enough, the patient dying of exhaustion; the other died of septic peritonitis. Since the writing of this paper, Mr. Jessett reported that he had operated on the two other cases, one dying from collapse after the operation, never having rallied from its effects, and the second was a case of combined pylorectomy with gastro-enterostomy, which was shown at the Society in October, having been operated on in the previous July. The patient reported himself now as being well and in the enjoyment of fairly good health. In all these cases the operation was performed by means of decalcified bone-plates. The two cases of jejunostomy were

both performed in men who were in a terrible state of collapse, pain, and emaciation at the time of operation. Both operations were successful, one man living in comparative ease for nine months, during which time he was free from pain and able to feed himself through the fistulous opening. The other man, although the operation *per se* was successful, succumbed six weeks after from exhaustion. These two operations were performed by a novel method suggested by the author, which was fully described.—Dr. BURNEY YEO said that these cases were very interesting to physicians. It should be remembered that some cases of scirrhus of the pylorus ran a prolonged course under suitable treatment, living in tolerable comfort for many years, and this should make physicians hesitate before recommending operation. In one instance from the commencement of symptoms to the termination of the case seventeen years elapsed, and in another twenty-two years. Success depended on suitable feeding, nothing being given but what the stomach could readily absorb, and under these conditions the patients would often rapidly rally. He held that the stomach rather than the rectum should be trusted for nutrition in these cases. He had seen the greatest benefit result from the persistent administration of creasote, and also from courses of Carlsbad water.—The PRESIDENT concurred in the value of palliative medical treatment in such cases. But if it were found that in spite of careful feeding the patient was losing ground, there could be no doubt that operation should be done at once. It was remarkable how varying was the susceptibility to cancer of various individuals, some being particularly vulnerable, while others apparently possessed the power of resisting its incursions. He asked if in the fatal cases the diagnosis of cancer was confirmed post mortem, and what operation the author would do in a case of closure by malignant growth of the lower part of the œsophagus.—Mr. JESSETT, in reply, said he had never seen a case of pyloric cancer last so long as some of those quoted. He strongly suspected that the diagnosis might be in error, and that they were instances of pyloric fibrous stricture which afterwards underwent malignant degeneration. He agreed as to the value of suitable diet in preserving strength and nutrition. Three of the cases he had related had been under treatment for a long time, and had been going steadily down hill; the last, indeed, never rallied from the operation, which had been postponed too long. He advocated early operation, as then there was a chance of not only doing gastro-enterostomy but pylorectomy as well, if the case should prove one suitable for extirpation of the growth. One of his fatal cases proved to be non-malignant fibrous stricture. In a case of cancer at the lower end of the œsophagus he would do gastrostomy, with the use of Senn's plates.

Reviews and Notices of Books.

Surgery. By C. W. MANSELL MOULLIN, M.A., M.D.Oxon., F.R.C.S., Surgeon and Lecturer on Physiology to the London Hospital; formerly Radcliffe Travelling Fellow and Fellow of Pembroke College, Oxford. London: J. & A. Churchill. 1891.

IT is impossible to read this work without realising that certain circumstances may tend to raise a prejudice against it. A volume of over 1400 pages is of necessity very cumbrous, and the reading has been made difficult by the disproportionate margin to the text. This cannot fail to act unfavourably on the mind of a reviewer and to damp the ardour of a student. Of a total of 495 illustrations only 152 are original, while 132 are Mr. Bryant's and 63 are Fergusson's. In a new edition of the list of illustrations the source of the borrowed illustrations is given, but it is not indicated in the text as it ought to have been. We cannot help feeling that to rely so largely as this upon the work of others, and particularly to use for one surgical text-book woodcuts prepared for a previous one, is most undesirable.

The work is designed as a text-book for students, and as such is an ambitious attempt to rival or surpass those of Erichsen, Bryant, and Holmes. The author has displayed great courage in undertaking such a task, for it must be confessed that he is heavily handicapped in the contest. The writers we have named had all had a large experience in the practice and in the teaching of surgery when they published their works, while it is Mr. Mansell Moullin's good fortune to be in a position to anticipate such an experience. And it must be confessed that experience is the highest of all qualifications for the writer of a text-book, and we cannot say that we find evidence in the book before us that other excellent qualities can compensate for its want. Mr. Mansell Moullin has shown great industry, has made good use of surgical literature, and has utilised the researches, writings, and experience of others. The teaching of the book is in general harmony with that of British surgeons, and students will find it a safe guide. The writer's object appears to have been to give an epitome of general surgical knowledge, and not to advance original or the most novel teachings, and in that he has been well advised.

The Book of Climates. By D. H. CULLIMORE, M.D., M.R.C.P. Lond. and Dub. London: Baillière, Tindall, and Cox. 1890.

THE object of this work, we are informed in the preface, is "to give a concise, clear, and useful account, and one which will be acceptable alike to the profession and the public, of the climates of the different countries of the globe, their salubrity, health resorts, mineral springs, and prevailing diseases." In attempting to accomplish these objects within the limits of a small volume of 266 pages, the author has essayed a practically impossible task, and has condemned himself to inevitable incompleteness and superficiality. He seems conscious of this himself, remarking that "the greatest difficulty encountered has been to keep it within the limits prescribed by the publishers and the needs and purchasing capacity of the profession and the public, and to render the descriptions at the same time interesting, intelligible, and useful." Nevertheless, as a slight sketch of the great topic of the world's climates and their influence on health and disease, Dr. Cullimore's work possesses some considerable merits. A very large amount of information is packed into the narrow limits of space allotted to the author. There is no verbiage or padding, and the writer presents his facts in the main accurately and in a readable form. We have, however, noted some curious errors. Thus at page 197 we find the extraordinary statement that "at Cairo, which is a dirty, crowded, low-lying city, the death-rate is about 30 per cent." (*sic*)! The actual death-rate of Cairo during the last seven years, including one cholera year, has been 21·8 per 1000 among Europeans and 46·5 per 1000 among the natives. At page 18 we are informed that "in Switzerland, Austria, and the south of France places ..... above 4000 feet are generally exciting, and often wet, variable, disagreeable, and harsh." This statement requires much qualification. Such statements as that "Penzance possesses the most equable climate in the world" (p. 64), and that "Homburg is perhaps the most popular and amusing bath in Europe" (p. 126), are certainly at least open to serious question. Such errors or questionable statements are, however, exceptional, and though calling for correction or modification, do not seriously detract from the general accuracy of the information presented by Dr. Cullimore.

It will be seen that the author aims at giving a bird's-eye view of *all* the climates of the world without regard to the special merits which some of them possess as sanatoria. The point of view thus assumed is that of the physical geographer rather than of the physician and medical climato-

logist. It may be questioned whether this is a convenient or practically useful way of handling the subject. It entails relatively long descriptions of countries of no importance therapeutically, while some of the most valuable resorts are too briefly dismissed. Thus Dr. Cullimore devotes five pages and a half to Burmah and adjacent countries, and about the same space to the West Coast of Africa, the Soudan, and the Congo; while Egypt receives rather less than two pages, Algeria a little more than two pages, and Madeira and Tasmania about half a page each. This is a serious detraction from the value of the work regarded as a guide to the profession or to patients seeking a new climate on the ground of health. This plan has the further drawback that it leads the writer to give prominence to mere geographical or physical facts, while the difficult but interesting and vitally important problems of medical climatology receive relatively scant attention. In this department, however, as far as he goes, Dr. Cullimore is, in the main, a safe guide. He appears to have no prejudices and indulges in no hyperboles, and his hints on the therapeutic applications of the various climates, though brief and inadequate, are rarely much at fault.

Dr. Cullimore writes from a considerable personal experience of foreign countries and climates, and his book is a practical one. We cannot help wishing, however, that he had allowed himself wider limits of space and given us a really adequate account of the interesting and important topics with which he deals.

OUR LIBRARY TABLE.

Abdominal Surgery. By J. GREIG SMITH, M.A., F.R.S.E., Surgeon to the Bristol Royal Infirmary, Lecturer on Surgery, Bristol Medical School. Fourth Edition. London: J. & A. Churchill; Bristol: J. W. Arrowsmith. 1891.—The fact that in four years as many editions of this work have been called for, and that the present edition is being translated into French, German, and Italian, is the best possible evidence of the high value attached to Mr. Greig Smith's monograph both at home and abroad. The original volume of 600 pages has grown to one of 800 pages, and it has been found necessary to omit the Bibliography, which had grown unmanageably large. But an "Index of Authors," referred to in the text, has been introduced. The book has been brought well up to date, new operations are noticed, and the latest results of treatment are given. The inaccurate term "laparotomy" and the clumsy one "abdominal section" are replaced by "cœliotomy," which was first proposed by Harris of Philadelphia. This seems the best suggestion that has yet been made, and it would save confusion in the future if surgeons would agree to use it.

Report of Experiments now being pursued in the Bacteriological Laboratory of the Academy of Natural Sciences of Philadelphia. By SAMUEL G. DIXON, M.D. Philadelphia. 1891.—In this short note Dr. Dixon gives the results of a series of experiments on the growth of tubercle bacilli on special media, and also on the treatment of tuberculosis by subcutaneous injections of dilute sulphuric acid and formic acid. He thinks that the tubercle bacillus loses its virulence in a certain degree when it is cultivated continuously on artificial media, and gives the result of a series of inoculations of such material into young dogs; he hints that the injection of glycerine into the body may interfere with the action of the poisonous products of the bacillus. The report, however, is incomplete, and is apparently only a tentative one.

On Certain Conditions that Modify the Virulence of the Bacillus of Tubercle. Proceedings of the Royal Society vol. xlix. By ARTHUR RANSOME, M.D., F.R.S.—In this short paper a series of observations are given to prove that fresh air and light and a dry, sandy soil have a distinct influence in diminishing the virulence of the tubercle bacillus; that darkness may interfere with this disinfectant action, but that the mere exposure to light in otherwise bad sanitary conditions does not destroy their virulence. The data on which these conclusions are based are somewhat scanty—a fact which is acknowledged by the author, who, however, promises a series of further observations, and also a note of the examination as to the pathological conditions met with in the specimens he obtained.

Outline of a Course of Lectures on Human Physiology. By ERNEST ALBERT PARKYN, M.A. London: Allman and Son. 1891. Pp. 167.—In the compass of a very small book Mr. Parkyn has managed to condense a considerable number not only of physiological, but of histological, anatomical, and chemical facts. In the compass of less than 200 pages it is not possible to give more than an outline of the mode in which the various functions of the body are performed; but what is here given is at least correct, and the treatise might well be used in schools of either sex as a reliable exposition of the main facts in physiology.

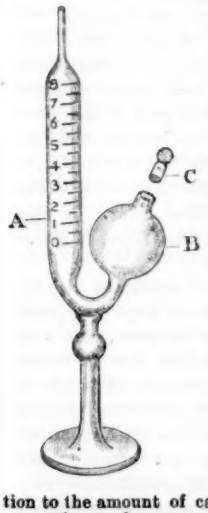
The Philosophy of Clothing. By W. MATTIEU WILLIAMS, F.R.A.S., F.C.S. London: Thomas Laurie, Paternoster-row. 1890.—We find in this little book a series of well-written chapters on the why and wherefore which ought to regulate our choice of clothing. The experiments of Baron Rumford on heat conduction and evaporation, which form the text of these remarks, are explained in brief detail and with admirable clearness. Not a few suggestive particulars, moreover, have been added by the author's own thoughtful originality. His appeal for woollen or other porous underwear, his dislike of the warm and close overcoat, his advocacy of down as a wholesome but still untried clothing material, will each and all bear the test of skilled criticism. Let us not forget to notice a recommendation of dark underclothing for the tropics, founded on Surgeon-Major Alcock's theory of heat-stroke by cutaneous impression. After a careful perusal we have no hesitation in saying that the reader will find in these pages much to instruct and entertain him, much that he can safely endorse, and little occasion for serious dispute.

We have before us the *Veterinary Journal* and *Annals of Comparative Pathology* for November and December. In the former number is an account of some recent experiments with "mallein" made by Mr. Leonard Pearson, V.S., V.M.D., Pennsylvania University. This mallein is a filtered broth and glycerine culture of the glanders bacillus. He finds that in those cases in which repeated injections were made the mallein had not the least deterrent effect on the development of the glanders process. He believes, however, that this substance will be useful as a diagnostic in doubtful cases of glanders. The same author contributes a short article on recent foreign investigations of swine disease, from which he argues that there is but one swine pest in America — that is, that hog-cholera and swine-plague are the same. Reports of meetings, class lists, and introductory addresses make up the remainder of this number. In the December number Mr. E. E. Bennett, F.R.C.V.S., A.V.D., follows up Mr. Pearson's notes, and gives records of a number of sets of experiments from which he also argues that mallein may be useful as a diagnostic agent. Professor M'Fadyean continues a most interesting article on Tuberculosis, and Professor Fred. Smith of the Army Veterinary School, Aldershot, who has recently protested against the overloading of our cavalry horses, has an exhaustive paper on Veterinary Hygiene. Reports of the various colleges and veterinary associations complete this number.

New Inventions.

A SIMPLE INSTRUMENT FOR THE QUANTITATIVE ESTIMATION OF SUGAR IN THE URINE.

DR. EDGAR GANS of Carlsbad has recently called the attention of the profession at Berlin to a simple instrument for the quantitative estimation of sugar in the urine which is particularly adapted to the wants of the general practitioner, on account of its accuracy and easy manipulation. It consists of a U-shaped glass tube about six inches high, the longer leg (A) of which is graduated, as the annexed sketch shows, the shorter leg (B) terminating in a glass bulb, on the extremity of which fits a glass stopper (C).



The sides of the bulb and of the stopper are pierced in corresponding diameters by two fine holes, so that the exit of air can be prevented by a slight turn of the latter. To use the instrument, first mix in a flask 10 cc. of the urine to be examined with 90 cc. of clean water, and shake up with a piece of yeast about the size of a coffee bean till there are no longer fragments of yeast floating about in the vessel. Then pour 10 cc. of this mixture into the bulb (B), and adjust the stopper (C) so that the holes in the bulb and stopper coincide. Now tilt the tube to the left, so that the level of the fluid in A corresponds with the zero on the scale, and by a slight turn of the stopper shut off communication with the atmosphere. Leave the instrument in an ordinary room-temperature (about 65° F.) for eighteen to twenty hours, and, fermentation going on, the liquid in tube A will rise from the point 0 in proportion to the amount of carbonic acid given off—that is, in proportion to the amount of sugar in the urine. The instrument is so graduated that the points on the scale correspond to the percentage of sugar, so that if the fluid in A rises to 2·5 the percentage of sugar is 2·5. After repeated experiments Dr. Gans found that in accuracy it almost equalled the method of polarisation, while in cases of the simultaneous presence of sugar and albumen in the urine it could be used when the polarimeter could not. The instrument can be obtained at a nominal cost from Fiebig, Alexandrinenstrasse, 27, Berlin.

L. M. SCOTT, M.A., M.B., D.P.H. Aberd.

THE GEM FILTER.

FOR the removal of suspended matter in water this little filter answers admirably. On passing through it a sample of turbid and dirty water, which failed to deposit even after several days, a perfectly clear and bright filtrate was obtained. The gem filter, made by the Gem Water Filter Co., 21, York-place, Leeds, consists of a plated metal cylinder about two inches in diameter and two inches in length, provided with a screw thread at either end, so as to make it convenient for attaching to the ordinary supply tap. The cylinder contains pure coarse quartz, bounded top and bottom by a small sieve of fine mesh. By reversing the filter any sediment that may have accumulated can be removed. Quartz serves as an efficient filtering medium as regards the removal of suspended matter, but other media, such as well-prepared coke, might be used with equal effect, and with the additional advantage that it would also remove a part at least of the organic matter in solution, as well as, according to Frankland's experiments, certain low forms of life.

AN EXPERIMENT IN SEWAGE IRRIGATION.

MEADOWS irrigated by the town sewage to the extent of some eight acres have been worked at Crieff for at least sixty years: part on the Broich estate, where the ground was gravel and flat; part on the Crieff estate, on moorland with a steep slope. The grass was a coarse meadow grass, mixed with many water plants and weeds. The grass was cut and sold.

In 1870, Dr. Andrew Smart of Edinburgh writes, a new water supply was introduced to Crieff equal to 450,000 gallons per day. After some years it was found that the small meadows were drowned by so much water of a depth equal to twenty feet a year. At Broich the sanitary state of the dwelling-houses was seriously injured, and the irrigated area was reduced, and the sewage run to waste into the river Earn. On the Crieff estate most of the sewage was run to waste. It was then found necessary to investigate the question with a view to utilise such a large quantity of weak sewage. Crieff is fortunately situated on a hill with a southern exposure. The ground is naturally steep, and very favourable for drainage and irrigation. In fact, few towns have the advantages of a south aspect, with hills to keep off the north and east winds, extensive views, and a large area of land of several hundreds of acres, all at a level suitable for irrigation. After mature consideration, it was decided to carry out an entirely new scheme.

Instead of trying how much sewage could be run on an acre, it was determined to try how thin the sewage could be spread, and over how large an area it could be used. Some sixty acres were available to treat about one-fourth of the sewage. This sewage includes the rain water. Two sewers were laid, one a high-level, six inches in diameter, and a low-level sewer twelve inches in diameter, as a gradient of only 1 in 200 was obtainable, and this low sewer was liable to floods. These sewers are so arranged as to have a valve for irrigating each field quite independently of the others; the sewers are at least three feet below the surface, and any field can be irrigated at pleasure. The fields were all tile-drained some forty years ago. The soil is a poor, moor soil. The old meadow system of cutting the grass in summer was entirely given up; none of the grass is cut. The fields are laid down with fine pasture grasses; the sewage is distributed over the surface by catch-water gutters cut in the sod. During summer the grass is grazed by milk cows and other cattle; in winter sheep graze on it. It is found best to shift the sewage after a week; there being such a large area available, this is easily done. A discharge of one gallon per square yard per day for a week together produces a good result; it is then shut off that field and put on to another field; a field should not have sewage run on for more than a week continuously. It is found that weak, thin sewage is easily carried and distributed. The surface gutters require raking out occasionally. The financial result is satisfactory, and no difficulty has been experienced in the working. Turnips have been successfully grown by running sewage continuously for three months, but turnips have very little effect in purifying the sewage. The drainage from turnips and all other crops should be run over pasture, which alone has the power of extracting manure out of water.

ORPHAN WORKING SCHOOL, HAVERSTOCK-HILL.—These schools, which usually have over 500 children in occupation, have had to be closed and the children removed owing to defects in the sanitary condition of the buildings, and the Estates Committee instructed their architect, Mr. Chas. Bell, to prepare plans and specifications for putting matters in order. Mr. Bell prepared two schemes, one for improving the existing sanitary arrangements in their present positions, and another for building detached sanitary blocks. As either of the schemes was likely to entail considerable expense, it was decided to consult some sanitary expert on the matter, and Mr. Edward Tidman, C.E., F.S.I., of Westminster, was instructed, and has just reported to the committee, advising the adoption of the separate detached blocks, with certain modifications. Mr. Tidman's report was adopted, and the architect instructed to obtain estimates strictly on the lines of Mr. Tidman's report and recommendations, and it is proposed to carry out the work without delay.

THE LANCET.

LONDON: SATURDAY, JANUARY 16, 1892.

THE DEATH OF THE DUKE OF CLARENCE AND AVONDALE.

IN common with every subject of the QUEEN the members of our profession have been profoundly saddened by the severe blow that has fallen on the Royal Family in the death of the eldest son of the Heir Apparent after an illness of very brief duration. The circumstances of this sad bereavement are especially painful in the cutting off of the life of one who was about to enter on a new phase of domestic happiness, with such brilliant prospects. This is not the place or the occasion to dwell on the vanity of earthly things or the bitterness of unfulfilled hopes; but we may at least tender to their Royal Highnesses the PRINCE and PRINCESS of WALES and the members of their family our heartfelt sympathy; and especially should we include in this tribute of condolence the name of the young Princess who has been bereft of him to whom she had plighted her troth, and with whom she might one day have shared the highest station in the realm. The English nation has during the present reign often evinced the depth and tenderness of its affection for Her Majesty and her family, and since the fateful December, thirty years ago, when the greatest blow that woman or Queen could suffer was inflicted upon her, there have been several occasions on which this bond of sympathy has been made manifest. Never, indeed, since the death of the PRINCE CONSORT has such universal sorrow been expressed throughout the land, its intensity being, perhaps, heightened by the suddenness with which the tidings of the fatal illness of the young Prince became known.

His Royal Highness the Duke of CLARENCE AND AVONDALE was attacked by influenza on Thursday, Jan. 7th, but first felt really ill on Friday, Jan. 8th, when he was unable to attend the birthday dinner given in his honour. On Saturday evening, Jan. 9th, a patch of pneumonic consolidation was discovered at the base of the left lung; there had been no distinct rigor, but his Royal Highness appears to have had some shivering on Thursday, the 7th. On Sunday morning, Jan. 10th, dulness on percussion and tubular breathing were present up to the level of the dorsum of the scapula, and in the afternoon as high as the spine of the scapula on the left side, while at the right base also these signs had appeared, and were found up to the angle of the scapula. No crepitation was heard at any time, and the consolidation did not extend far on the lateral aspect of the chest. The temperature was 103·4°; the pulse about 90 and of good character; the respiration 30; and the intellect was perfectly clear. During the night of the 9th the Prince was very restless; on that of the 10th there were snatches of sleep, and at one time the temperature fell below 102°. No material change took place in the condition of his Royal Highness on Monday, the 11th, but there was copious expectoration of yellow colour, occasionally blood-stained, not very viscid or frothy. The left base cleared up considerably, but the right middle lobe became implicated. During the night from the 11th to the 12th there was not much sleep, and his Royal Highness's condition in the morning was not very satisfactory. The physical signs gave evidence of further clearing up of the lungs in the course of the day; nourishment was taken well, and the pulse continued good, but in the evening the patient became more excited, and during the night very delirious. The delirium continued throughout the day, and this constituted the dominant feature of the illness. The consolidation of the lungs had almost entirely disappeared on Wednesday, but fine crepitation was present. Marked improvement took place in the early part of the night of the 13th; the delirium was less violent and less continuous, with intervals of sleep, but about 2 A.M. on the 14th collapse suddenly supervened, with unconsciousness and absence of conjunctival reflex. A rally from this condition took place, but his Royal Highness gradually sank and died about 9.10 A.M.

The details of the illness are thus in agreement with the now familar fact that when pneumonia supervenes upon influenza it is mostly insidious in its onset, and very serious in its course. To some extent this is doubtless due to the effect which the influenza virus has in depressing the vital powers, and it sufficiently accounts for the exceptional fatality of pneumonia after influenza. It will be observed that the illness did not begin with any definite rigor, and that the signs of consolidation only appeared on the 9th inst. Thus it is somewhat difficult to determine the precise duration of the pulmonary affection; but it is probable that the pneumonic fever was approaching the crisis—the period at which death mostly occurs. The pneumonic consolidation, which was limited at first to the lower lobe of the left lung, involved on the 10th also the base of the right lung. Moreover, it began to clear up from the former organ whilst it was extending in the latter. The rapidity with which this resolution was taking place is one of the remarkable features of the attack; whilst the character of the expectoration, the degree of fever, and the pulse rate did not seem to indicate any special gravity. But there appears to have been a serious change for the worse during the night of the 12th, which was announced in the somewhat alarming bulletin issued the following morning. His Royal Highness appears to have become very delirious, and these cerebral symptoms persisted throughout the 13th, constituting the chief feature of the case, for the signs of pulmonary inflammation were subsiding, and the fever was abating. Moreover, his pulse remained fairly good, and in the evening of the 13th a rally took place which must have considerably raised the hopes of his medical attendants as to his recovery, seeing that the period of crisis must then have been nearly reached. That rally, unhappily, proved to be delusive, and a rapid failure of the vital powers set in early in the morning of the 14th.

PERHAPS it is not unnatural that the public should feel a little impatience of the influenza, and of the medical profession for not more effectively curtailing its prevalence and the mischief which it works. Under the influence of medicine in its sanitary and curative work epidemics have been greatly restrained as respects both their area and their mortality. We have almost ceased to dread cholera since Dr. SNOW, Mr. JOHN NETTEN RADCLIFFE, and others showed how its diffusion is accomplished, and therefore how it can be avoided. Typhus fever is a curiosity in London, and even in Dublin it is becoming a rarity. No one need die of small-pox; indeed, no one need have it unless he likes—that is to say, he can be absolutely protected by vaccination, once repeated. It is so scarce for the moment that foolish people think it has been permanently altered or weakened by fresh air or good drainage, and are putting on an air of contempt for vaccination which will not long survive a veritable resuscitation of this very serious and horrible disease. But, lest we should be unduly exalted, an epidemic of influenza reappears for the third time; and the criticism of some of the public and of the newspapers is uncomplimentary. The alleged discovery of a bacillus is treated with playful incredulity or something worse, and the general action of the profession in regard to the disease is abused. We venture to say that this view of the subject is not quite reasonable. The public is asking for what cannot in the nature of things be expected. Here is a disease which on its appearance in 1890 was new to the great body of men now in practice, undergoing a natural process and tending, under good conditions and judicious treatment, to a favourable issue in the majority of cases. The discovery of a bacillus is not yet confirmed; but it is highly probable. It is childish impatience in these circumstances to cry out all at once, "What is the good of such a discovery? What has come of the discovery of the tubercle bacillus? Are we to go once more through the dreary ordeal of the delusion experienced for the cure of tuberculosis by the injection of KOCH'S fluid?" If there be a specific organism at the root of influenza and its efficient cause, surely it is well that we should know it. We must catch our hare before we can cook it. We gain immensely in clearness if we can but establish the fact of such an organism, having the same relation to influenza as the tubercle bacillus has to tuberculosis or the bacillus anthracis to anthrax. We do not hear the same petulant complaint against typhoid fever or small-pox, because they have to run a definite course, generally much longer and much graver than is the case with influenza. The medical profession is not ridiculed and abused because it cannot stop abruptly the course of these diseases. It is recognised to be doing a great service to mankind in studying the chief risks of such diseases, the best way of avoiding such risks and of conducting the patients safely through them. The profession is doing the same with reference to influenza, and in many ways mitigating the suffering which it causes and limiting the mischief which it is apt to do. The rapid diffusion of the disease as compared with that of other contagions is a fact which requires further elucidation. But that is largely in the hands of the public, who have not yet learned to regard cases of it with that dread with which they regard small-pox or scarlet fever, and who refuse to take the same precautions which they adopt in regard to these diseases. The want of a wholesome fear of the disease does harm in two ways. It leads those who have the premonitory symptoms to disregard them, and to use insufficient means of saving and protecting themselves; and secondly, to carelessness with regard to risks of infection. Early application for medical advice and the diligent observance of such advice would save patients from many complications of the disease which tend to make it long or grave, and would have the further effect of limiting the spread of the infection—for there can be no longer any doubt of the infectious nature of the disease. It is not our object here to enlarge on the treatment of influenza or on the undoubted value of many measures and remedies at different stages of the disease, but rather to assure the public through the profession that medical practitioners are deeply engaged in the systematic study of the malady in all its personal and public bearings.

THE reports which have just been issued as to the prevalence of diphtheria and allied sickness at Wellington College hardly raise any points that have not long been before the public. In January, 1884, precisely the same subject was under discussion in the pages of THE LANCET. During the preceding year 175 cases of throat illness had occurred; 93 were set down as "diphtheritic throats," and 82 as "sore-throats." It was then pointed out that underneath a surface soil of sand there was a bed of clay and an "iron-pan," an iron oxide concretion between the clay and the surface, which seriously affected the natural drainage; mists and fogs prevailed in the valley, whilst "mirk bottom" was supposed to tell the tale of its damp hollow by its characteristic name; and the opinion was expressed that there was ample, apart from certain sewage defects, "to give the diphtheritic character to what would otherwise be a simple sore-throat." And by way of proof, another school near by was referred to where these conditions did not obtain, and it was asserted that for fourteen years no case of diphtheritic throat and no single case of acute lung disease had occurred. These opinions were set out by Mr. BARFORD, medical officer to the College, and they were the result of twenty-two years of observation. Much controversy arose at the time, but even those who denied that the physical circumstances, combined with certain sanitary defects, had concern in the production of the throat mischief and in the special characters which it tended to assume were agreed that alterations were needed in the direction of doing away with the circumstances which had been complained of and certain works were in consequence carried out.

Once again reports relating to Wellington College are before the public; again they relate to diphtheria and to throat disease; again the general sanitary circumstances of the College and of its surroundings are in question; and again Mr. BARFORD calls attention to conditions similar to those prevailing in 1884. His communication will be found elsewhere. During the concluding term of last year no fewer than 244 boys were received into the sanatorium before the school was prematurely closed, by the advice of Sir ANDREW CLARK, on Dec. 2nd. The prevailing disease is believed to have been

influenza in the first instance; but later on, according to Dr. BRISTOWE'S report, Mr. ARMSTRONG, the medical officer to the College, said that either some aggravation of local conditions must be affecting the health of the boys injuriously or some new specific malady had been introduced. Dr. BRISTOWE is not a believer in the progressive development of the property of infectiveness as exemplified by diphtheria, and it will be immaterial for our present purposes to endeavour to explain precisely how the change came about which suddenly caused so much alarm. It is sufficient that a change did come, that febrile symptoms, inflamed throat, and swollen glands in the neck, with swelling or ulceration of the fauces, were followed by cases that were regarded "as malignant or phagedænic ulceration of the throat," and that these latter cases at least were "true diphtheria." Indeed, Dr. BRISTOWE goes further. He has no reasonable doubt that most, if not all, of the cases which, from the similarity and gravity of their symptoms, had caused alarm, were also cases of diphtheria.

But what were the conditions with which this occurrence was associated? Here we seem carried back again to 1884. Dr. BRISTOWE, speaking of the condition of the soil, says that from its peculiar conformation and character there is no doubt but that it tends to become saturated with water and to remain sodden. Here we have a prominent condition with which such recurrences of throat illness and diphtheria are now known to have some intimate relation; and the condition is one which tends to be aggravated by every wet autumnal season of the character of the last three or four months of last year. "It constitutes," says Dr. BRISTOWE, "a grave sanitary defect.' And it is the more grave because it is one of the principal defects that were pointed out in 1884, and which some were at pains to deny. But unfortunately this is not the only defect; mere rainfall is not the cause of diphtheria. "The drainage and other sanitary appliances of the College estate" turn out "to be exceedingly defective," and what with the reconstruction of drains and the deepening of dykes to carry away subsoil water, Mr. ROGERS FIELD, who has the engineering works committed to him, cannot undertake to authorise the College to be reopened until Easter next, and measures are under consideration for tiding over the intervening period.

We are thus face to face with the fact that diphtheria and an allied throat disease have again been prevalent at Wellington College; that the essential conditions which were found to be faulty when the same disease prevailed eight years ago—namely, dampness of site, with its fogs and soil emanations, together with defective drainage arrangements—still prevail on the estate; and that much that was written on the subject in 1884 still applies in the present day. Under these circumstances, it matters very little by what stages, if any, the disease passed from a comparatively innocent to the "malignant" form. Influenza may possibly have been associated with symptoms which, aided by prevailing moisture and faulty sanitation, led to a special condition of fauces which fitted them to receive the diphtheria infection; for, quite apart from the influenza, it may be that one or more of the defective sanitary circumstances referred to in the reports may themselves have induced that "simple follicular tonsillitis" which so commonly precedes recognised diphtheria, and which forms a soil in which the diphtheria organism seems to have a special faculty for developing. However the conditions arose, they present nothing peculiar. The Wellington College outbreak takes its place as one of many very similar ones; and unless the conditions to which prominence is once more given can be effectually removed, it is highly probable that diphtheria will before very long be again heard of in the locality.

Had it not been for Sir ANDREW CLARK'S wise decision to close the school, the mischief might have been much more serious. The disease had apparently just reached that stage when, judging from other outbreaks, it could so easily have been transformed by school aggregations and unhealthy surroundings into a very serious and very fatal diffusion, and it is highly probable that the sudden school closure did much to prevent this taking place. We trust we are right in inferring that the College officials do now seem alive to the real need of doing away with all the faulty conditions that have been prevailing for so many years, and we would again urge that it would be more satisfactory to all concerned to have the College inspected and reported on by some perfectly independent authorities efore the structural works that have been decided on are completed.

AMONGST the many services rendered by thermometry to clinical medicine must be reckoned the discovery of febrile states in certain affections which were previously regarded as running an apyrexial course; and just as systematic observations on the temperature have furnished us with abundant information concerning the type of pyrexia that characterises each one of the specific fevers, so it may eventually prove that certain special types of fever are associated with diseases that run more or less a chronic course. The last contribution made by the late Dr. MURCHISON to clinical medicine, of which he was so ardent and sagacious a follower, was to illustrate from his wide experience the conditions under which intermittent or paroxysmal fever is met with. The clinical lecture in which he adduced these facts was published in these columns just after his death,[1] and in it he dealt, among other affections, with the characteristic pyrexia of lymphadenoma. Since then there have not been wanting many records of cases of malignant disease—mostly of the class of sarcoma—in which irregular pyrexia, often to a very marked degree, has been a notable feature of their clinical course. Indeed, it may be accepted as a clinical fact that the more malignant and diffused forms of sarcoma—those which have been designated by the general term "sarcomatosis"—are invariably accompanied by pyrexia. In 1887 W. EBSTEIN published[2] details of a very remarkable and apparently unique case, which he termed "chronic relapsing fever." It was characterised by alternating periods of high fever and apyrexia, lasting for months; and when, exhausted by increasing weakness, the patient eventually succumbed, the underlying condition was found to be one of malignant lymphosarcoma. Similar types of fever were subsequently recorded by other writers; some in HODGKIN'S disease, as in the examples cited by

[1] THE LANCET, vol. i. 1879, p. 617.
[2] Berl. Klin. Wochensch., No. 31.

MURCHISON, some in internal sarcoma, independent of the lymphatic system.

The latest contribution to this subject—which has given rise to the above remarks, and has also impressed us with the desire that a careful collection and study of cases of this class should be undertaken—is by C. PURITZ, who records a case observed in the clinic of Dr. TSCHUDNOWSKY at St. Petersburg.[3] The patient was a young man twenty-two years of age, who in the autumn of 1889 began to suffer from increasing weakness, dyspnœa, and enlargement of the abdomen. Examination showed the presence of some nodular masses in the abdomen, contiguous to the liver, but it could not be determined whether they were actually connected with that organ—some enlargement of the spleen, and of the axillary and cervical glands. There was also marked anæmia. Four years previously he had acquired a sore on the penis, but this had not been followed by any syphilitic signs, and it may at once be said that the supposition that the conditions were due to syphilitic infection was negatived by the failure of antisyphilitic treatment to modify the cause of his illness. In February, 1890, he began to be febrile, and during the next six months he had several attacks of fever, uninfluenced by quinine, with intervals of freedom from pyrexia. It was in August that he came to the St. Petersburg clinic, and the case was carefully observed to its close in November. It was throughout marked by a high degree of fever of an irregularly remittent and intermittent type wholly uncontrolled by antipyretic remedies, arsenic and other drugs. The masses in the abdomen were thought to be connected with mesenteric and retroperitoneal glands, and the diagnosis of lymphosarcoma was made. The anæmia and weakness increased, and death was preceded by peritonitis. At the post-mortem examination the liver was found to be enormously enlarged, reaching to the pelvis, and the seat of numerous soft whitish masses of new growth, some of which had broken down, whilst the lymphatic glands in the abdomen were unaffected. The spleen was enlarged, as also were the cervical and axillary glands, which had been noticed during life. Such a case must be placed in the category to which EBSTEIN drew attention, although the "relapsing" type of the fever, from which the patient had undoubtedly suffered in the earlier part of his illness, was not maintained to the close. But the category must be enlarged, far beyond the limits conceived of by EBSTEIN, to include a great variety of cases of so-called malignant disease associated with pyrexia. Of course all cases complicated with inflammatory or suppurating processes must be excluded, and yet we doubt not the class of febrile sarcomatosis will remain very considerable. Nor must the association of irregular pyrexia with neoplastic formations be confined to the class of lympho-sarcomata alone. This class, which, on the one hand, comes closely into relation with simple lymphatic hyperplasms, and with HODGKIN'S disease (or "pseudo-leukæmic," as it is termed in Germany), passes, on the other, into what may be regarded as true sarcoma of the lymphatic glands, and, as we see in PURITZ'S case, sarcoma of other internal viscera. It becomes a question for the pathologist to determine how far he is justified in making a distinction on histological grounds between affections which clinically seem to be so closely linked.

This brings us to the interesting speculation as to the possible dependence of "sarcomatosis" upon the growth of infective micro-organisms. It may be straining analogies too much to in any way ally this form of neoplasm with the granulomata that are caused by the microbes of tubercle and syphilis. But there is a growing feeling that malignant growths (so called) are very analogous to infective diseases generally, and that time may eventually reveal their dependence upon parasitic microbes. That these microbes belong to the bacterial class seems improbable, in view of the negative results attending all attempts at the cultivation of such organisms from cancerous formations. But—and the curious association of psorosperms with some forms of epithelial cancer suggests it—it is by no means improbable that organisms of a protozoal kind have to do with the initiation of these malignant formations. This hint is thrown out by PURITZ, who says that sections of the growth from his case exhibited some granules and masses in the protoplasm of some of the cells, which stained very deeply with methyl blue and might be of extrinsic origin. This, however, is a pathological problem which remains for solution, and until methods be discovered for the isolation and cultivation of protozoic organisms analogous to those introduced by KOCH for protophytic microbes, which have yielded such marvellous results, it is difficult to see how the question can be determined. Meanwhile the careful clinical record of such cases, and in particular the observation of all those features in which they resemble infective disease, is likely to be of much service. And, in respect to diagnosis, the occurrence of pyrexia of the type mentioned is something to be borne in mind as characteristic of sarcomatous disease of the internal organs.

[3] Virchow's Archiv, Bd. 126, No. 2.

IT will be seen from an article in another page that the wave of reform in medical education, so far as its practical teaching and results are concerned, has at length reached the Scottish capital. In Edinburgh, in spite of many efforts to restore the balance, during the past ten years, theoretical teaching still largely takes the place of practical work, from even the natural history studies in the first examination to the final requirements in medicine, surgery, and midwifery, for the degree of M.B. and C.M. This defect is largely due, not only to the excessive number of students who have in recent years flocked to the University of Edinburgh either for the purpose of obtaining a degree instead of a diploma or because of the deserved renown of its professoriate, but also because Edinburgh, like Oxford and Cambridge, not being a large manufacturing centre, and not having special means like London for attracting a large roving population, has never been able to furnish an adequate anatomical supply or a sufficiency of clinical cases for the due practical education of its students. This is an old story, and the confirmation of it is strikingly shown in the debates on Practical Midwifery in the General Medical Council. It was there plainly stated that Scotch medical students could not attend the number of cases of midwifery which were judged to be adequate because of the impossibility of finding a sufficient number of cases in

proportion to the number of students. It is satisfactory, therefore, to notice that an association, mainly of younger lecturers and teachers, has been formed to increase the practical element in the teaching of the Edinburgh school. With large classes and few assistants, and these relatively very badly paid, it is clear that all personal supervision and instruction are impossible, and it is especially in these respects that the London medical schools have lately been making such rapid strides. Tutorial teaching to small classes is now in nearly every subject superadded to, or even has largely displaced, the more formal lecture. The number of lectures is being reduced to a minimum, and the amount of practical work duly increased, and it will become even more extensive under the five years' curriculum which is now introduced. It is only in accord with the spirit of the modern method of education that practical work in every practical subject—and there is nothing but what is practical in medical art and science—should displace mere theoretical orations. We are therefore all the more pleased to find that the younger members of the University see the necessity of such a reform, and are desirous of initiating it themselves rather than leaving it to be enforced from without. Education and examination can both be improved at Edinburgh by a more liberal introduction of the practical element. The days of professorial teaching to huge classes without knowledge of, or attention to, the wants and ambitions of the individual student are doomed, and the sooner the necessary rearrangements are made so as to secure the instruction of the individual unit the more secure and lasting will be the reputation of the great Edinburgh medical school.

Annotations.

"Ne quid nimis."

OLD AGE, DISEASE, AND COLD.

IT is only consistent with analogy in natural law that the period of old age should be known as a time of falling vital power. The fact, indeed, may not be accentuated or localised by any striking evidence of deficiency. In many cases the course of change is, like that of the ebbing tide, gradual, observable only by general indications and by comparison with past conditions. The body becomes weaker, less active, its tissues wearing out, but still remaining fairly healthy, preserving well the natural interdependence of different organs, and maintained by a slow but sufficient process of repair and even of development. In aged women more particularly do we note this orderly transitional alteration. In aged men there is, partly from habit of life and partly also, it would seem, as a mere constitutional and sexual characteristic, a tendency to greater organic variation, to degenerative changes in special organs, in the heart, arteries, or urinary organs for example. Some of these changes, indeed, must be regarded as in their way conservative. The flagging heart has a proportionate relation to bloodvessels hardened by senile atheroma. There is greater safety in the double abnormality than if the central pump drove its fluid contents with unabated force through channels which might at any time give way under the pressure. Cerebral deficiency, in like manner, if indicative in itself of progressive nervous degeneration, is from this very circumstance protective against the costly wear of tissue caused by worry. There is another aspect of the case, however, and we cannot doubt that impairment of vitality has much to do with the known readiness of the aged framework to give way under the strain of sudden exposure or of acute illness. We should duly take account of this before we describe as extraordinary or irregular even such marked mortality among the aged as that which has been associated with the recent severe weather. The condition of sluggish and enfeebled life to which we have referred possesses no such power of rapid reaction as is needful to withstand a frost of continuous duration, accompanied in many places by an epidemic of influenza. Death under such conditions is in fact an almost natural consequence In a more primitive era it would have wrought out practically unchecked its part in the physical order, and would have illustrated far more exactly the force of that law which determines the survival of the fittest. Where it has not so wrought we must attribute the result, as a rule, not to ordinary or individual vitality, but rather to the preservative arrangements of civilised intelligence, which provide for suitable food, warmth, and the timely care of apparently trifling signs of illness.

OATH ADMINISTRATION.

UNDER the heading "Kissing the Book," a northern contemporary recently dealt at length with the present mode of oath administration in English courts of law. The subject has been so often alluded to in the pages of THE LANCET that it is only necessary to repeat in brief what has already appeared. Members of the medical profession are more frequently called upon as witnesses than clergymen, members of the bar, solicitors, or indeed members of any other profession. Some have complained of the necessity of having to apply to their lips a book which has been handled and kissed by so many previous witnesses as to become an unclean thing. Others minimise the evil by kissing the open page. A third class conclude that what cannot be cured must be endured, and so submit meekly to what is really not such a trifle as may appear at first sight. The same remark applies to jurors, interpreters, and others. The only persons who are spared the infliction are Quakers and Separatists, and unbelievers, who, however, form but a small proportion of the whole number of jurors or witnesses. It is to be hoped that those with whom rests the responsibility of the continuance of the objectionable practice are not waiting for absolute proof of infection being conveyed by this means—a contingency by no means remote. The loving cup which is handed round at the Lord Mayor's and other banquets may be accepted or refused, but the book must be kissed by the witness, and it is the duty of the person administering the oath to see that this is duly done. It has been suggested that witnesses, especially those whose appearance in the box is frequent, should have their own books, which, as a glance would verify the fact that it was a copy of the Gospels or of the Pentateuch, seems reasonable enough. Another suggestion, however, is that kissing the book should be dispensed with altogether, the form of adjuration being the holding up of the right hand. It is very remarkable that while the kissing of the book has held its own with such persistency in England, Wales, and Ireland, the Scotch have with equal persistency maintained their mode of oath administration, which is by the uplifted right hand, the necessity for handling and kissing a dirty greasy book being thus altogether dispensed with. The superiority of the Scotch mode of adjuration is in this respect manifest. But this is not all. Those who have to frequent courts of law must have been painfully impressed by the total absence of solemnity or reverence too often shown by the person who administers the oath. To the younger members of the medical profession the proceeding savours of a farce, and familiarity does not improve this feeling, but literally and truly breeds contempt.

Here, again, the Scotch method is superior. The presiding officer of the court, whether judge or sheriff, rises and holds up his right hand; the witness does the same. The judge repeats the words of the oath, which, it may be added, are simpler but more solemn than the English form, the witness repeating them after the judge. Those who have seen witnesses sworn in both countries unhesitatingly pronounce in favour of that used in Scotland. It is not only more cleanly, but also more solemn and impressive. There will no doubt be difficulties to overcome in the face of established usage; but it is, to say the least, anomalous that two such totally different modes of adjuration should prevail in the same kingdom. Why should there not be some approach to uniformity, that mode being adopted which is in all respects preferable? Judges have complained of the English form as not being simple enough for witnesses of tender age. This cannot be urged against the Scotch form, which is simplicity itself. More recently the oath has been administered by the judge's marshal instead of the court crier, a proceeding suggestive of a gradual approach to the presiding judge, and it is to be hoped to a more radical change. In these pages the matter has been dealt with in the aspect in which it would occur to medical minds. Under no other circumstances are men and women called upon to handle and kiss anything in common. This, however, is only part of the question, the other part of which we have no wish to ignore. On the contrary, it is of the greatest importance that members of the medical profession should when they become witnesses be duly impressed with the solemnity of taking an oath, and have no reason (as they have at present) to regard it with contempt, or even with disgust. A short Act of Parliament, substituting the uplifted right hand for kissing the book and the repetition of the form of words by the witness, is all that is required. It would have much support, and probably little or no opposition. We commend the suggestion to members of Parliament.

INFLUENZA AND LONGEVITY.

WHENEVER a period of low temperature or of fog, or of both in combination, unfavourably affects our rate of mortality, the death-rate of the aged and of elderly persons shows a far higher rate of increase than the death-rate of the young or middle-aged, or even of infants. The veriest tyro of mortality statistics would recognise this as the natural result of the meteorological conditions above referred to. It may be noted, however, that as often as these conditions prevail, and the obituary notices in *The Times*, for instance, consequently show an unduly excessive proportion of deaths of elderly persons, some industrious paragraphist is sure to compile a statistical return showing the number of old people whose deaths have been advertised out of a given number of death notices announced during a given week. These figures are harmless enough in themselves, and useless enough, since no figures are ever given showing what are the normal proportions of the ages of the well-to-do classes whose deaths are so announced. The figures are, however, absolutely mischievous when the paragraphist or correspondent is allowed to draw inferences to the effect that this excessive and exceptional mortality among the aged affords evidence of increasing longevity. It is, however, a fact that during the past fortnight more correspondents than one in our lay contemporaries have referred to the fatal effect of influenza among the aged, judged by the obituary notices in *The Times*, as evidence of increased longevity. It is undoubtedly true that the proportion of deaths of elderly persons under the combined influence of low temperature, fog, and influenza has been abnormally high in recent weeks; but it is impossible to recognise any reasonable grounds on which this influenza mortality can afford evidence of increased longevity. Against such a misuse of statistics we feel bound to record our emphatic protest.

THE LATE CARDINAL MANNING.

UP till recently his Eminence Cardinal Manning, at the age of eighty-four, was in the enjoyment of his usual health and engaged actively in the discharge of the multiform duties belonging to his position. A few days ago he took cold, and on the 11th inst. Mr. Tegart was called in. On seeing the condition of the patient he at once recognised the gravity of the case, and Sir Andrew Clark was asked to see the venerable Cardinal. Dr. Gasquet, who was related to Dr. Manning by marriage, and was his usual attendant, had seen him a week previously, and advised that his Eminence should take to his bed. He suffered a good deal from cough, and on Monday, the 11th, symptoms of bronchitis supervened, accompanied by inability to take food and great prostration of strength. Although the Cardinal was always sparing in his diet and never took wine or stimulants of any kind, he nevertheless had up to this point relished his food. Now, however, he exhibited the greatest repugnance to it. Evidence of slight congestion first of the left lung and afterwards of the right appeared on Tuesday, the 12th, and on Wednesday morning there were further evidences of prostration of strength, with an irregularity of the pulse and increased difficulty of breathing, which continued to increase during the day, and in the evening of Wednesday his failure of strength was seriously marked, and medicine failed to promote the expectoration of the secretion which was filling the bronchial tubes. During the night he was quiet, but gradually got weaker and weaker, and he died at 8 o'clock on Thursday morning. Sir Andrew Clark found the bases of both lungs congested and the heart showed signs of failure by some intermission and irregularity of the pulse. Always ascetic, it was difficult to persuade the Cardinal to take the requisite amount of food and stimulants necessary to his sustenance in the circumstances. The progress of failure was so rapid that it may fairly be doubted whether either food or remedies would have had much good effect. On Wednesday evening the heart became much weaker, and it was obvious that his end was at hand. Nevertheless his intellect remained quite clear. He transacted a considerable amount of business, and enjoyed afterwards a placid sleep On the 14th inst., at 8 o'clock, the heart having failed, his Eminence, as already stated, died, free from suffering and conscious to the last.

EFFECTS OF TIGHT-LACING.

IN the number of the *Edinburgh Medical Journal* for the current month Dr. Johnson Symington describes the conditions which were found in the body of a woman of fifty in whom the effects of tight lacing were very obvious. As regards the chest, he found that down to the level of the fourth costal cartilages the sternum was convex and prominent and the intercostal spaces large. This part of the chest was flattened from side to side, the antero-posterior diameter opposite the third costal cartilage being 8 in.; while the transverse was only 7½ in. The lower part of the thoracic wall was greatly contracted, the lower costal cartilages being pushed inwards, so that the right and left seventh cartilages were in close contact with each other from their attachment to the sternum downwards for 2½ in. There they touched the tips of the eighth costal cartilages which not only approximated in the middle line, but slightly overlapped each other. At the level of the fourth costal cartilages the circumference of the chest after removal of the integuments was 27 in., while opposite the lowest part of

the eighth costal cartilage it was only 17 in., and with slight pressure this could be reduced to 16 in. The liver was less altered than is usually described. The lower part of the right lobe was pushed inwards, and the right and anterior surfaces showed a distinct depression running outwards and upwards for 2½ in. In this the tenth rib was lodged. Almost the whole of the gall-bladder projected beyond the lower edge of the liver. When the stomach was filled with air it showed a distinct constriction about the middle of its vertical portion, and the pylorus was not overlapped, as it usually is, by the liver. Both large and small intestines were distinctly lower than normal, but the kidneys and spleen had undergone no material change in position or form. The careful study of such a case from the anatomist's point of view is of the utmost importance, and the changes, both in position and form, evident in important organs in the case just described will, we hope, emphasise the evils of an absurd and silly custom.

CURIOUS NERVOUS DISEASE IN MEMBERS OF THE SAME FAMILY.

IN the last number of the *Neurologisches Centralblatt* there is an abstract of a paper by Bernhardt in Virchow's *Archiv* describing a curious and interesting condition which he found in several members of the same family. The parents were apparently healthy. They had in all eight children—six boys and two girls. One of the girls died at an early age, and suffered in a similar way to that about to be described as affecting two brothers. The second sister was neurotic, but otherwise free from signs of organic disease. Her children and grandchild were healthy. Two of the six brothers died before they were thirty, and did not suffer from the affection. The only child of one who died is healthy; the two children of the other brother who died are imbeciles. A third brother also died, but after attaining a greater age, and he apparently suffered in the same way as the three surviving brothers. These developed about the thirtieth year a very slowly progressive paralysis limited to the lower limbs, and consisting in muscular rigidity with increased reflexes, but without any sensory or trophic disturbances. The functions of bladder and bowel were retained, and intelligence was not interfered with. In one of the three in whom symptoms have been present for over ten years there have been added more lately symptoms indicating that the process has spread to the medulla and pons, and perhaps also has invaded the cerebrum itself. These symptoms are disturbance of articulation, paresis of isolated eye muscles, and nystagmus. The symptoms, it will be seen, resemble in some particulars those of disseminated sclerosis, but in the mode in which it attacks several members of a family it bears a close analogy to the ataxy of Friederich.

THE GREENING OF PEAS WITH SULPHATE OF COPPER.

THOSE who have maintained that peas coloured with sulphate of copper are injurious to health will hear with disappointment the decision given by Sheriff Birnie at the conclusion of the recent appeal suit in Glasgow. The case has occupied the attention of the court over an extended period, and much evidence of a conflicting kind has been heard. The experts engaged for the prosecution held sulphate of copper to be a cumulative poison, and they further argued that the albuminate formed by the copper salt with the legumen of the pea was soluble in the digestive juices. For the defence, on the other hand, statements were made to the effect that several tins of the brand of peas in question were used in certain families without any ill effects resulting, and experiments were cited which went to show that the compound of legumen of peas with sulphate of copper was practically insoluble, and did not enter the system, and was therefore to be considered inert and harmless. The sheriff, in giving judgment, said he expected that in this case he would have had evidence on the two points obviously desiderated—first, of practical injury from eating these peas; and secondly, of the difference between 1·4 and 2·5. (It was stated in the mass of evidence that while 1·4 grains might be innocuous, 2·5 grains were positively poisonous.) He had had none of that, and the facts remained precisely as in the previous case. It had not been proved that these peas had been injurious to health, and he therefore assoilzied the respondent. If it be true, as stated in the evidence for the defence, that the valuable nitrogenous constituent of peas—viz., legumen—combines with the copper, it follows that peas so treated are not rendered any more digestible or nutritious, since it is distinctly affirmed that the copper albuminate formed was practically insoluble, and therefore did not enter the system. In spite of this decision, analysts would do well, as hitherto, to report the fact of the presence of copper in any article of food which they may happen to examine. But of course as long as it is accepted by our legal authorities that small quantities of copper are not injurious to health, all attempts to prosecute on this ground must prove abortive. Meantime it would seem desirable that vendors of such coloured articles should be compelled to state with what substance, and to what extent, food materials are coloured. It cannot be denied that even small quantities of copper in food, though comparatively harmless to healthy adults, may not improbably give rise to unpleasant consequences in an invalid or child.

THE DEATH OF THE KHEDIVE OF EGYPT.

THE account given by Dr. Salem Pasha of the fatal illness of the late Khedive of Egypt, and published in the *Daily Telegraph* of the 13th inst., leaves unfortunately but little doubt that his death was accelerated by mistaken treatment. Dr. Salem Pasha was called to the Khedive on Jan. 1st, and found him suffering from influenza and bronchitis. For a few days he improved, but on the 5th there was a relapse of fever and increased catarrh, with much weakness. In the early morning of the 6th Dr. Salem Pasha was hastily summoned to the patient, and found him unconscious, suffering from great dyspnœa, and a temperature of 104° F. He learnt that the Khedive's aide-de-camp had at 9 P.M. administered a hypodermic injection of morphia, and the European physicians who had been summoned were unable to arrive until shortly after Dr. Salem Pasha. Death was attributed to uræmia, but Dr. Salem Pasha asserts that he was not made aware of the fact that his Highness had renal disease. His report is certainly not very clear; but we fear that if nephritis really existed, the injection must have materially aided in bringing about the fatal result.

THE EXTRACTION OF TEETH FOR DENTAL IRREGULARITIES.

MR. ALEX. KIRBY'S paper on Extraction considered as a Means of Correcting Dental Irregularity, read before the Eastern Counties Branch of the British Dental Association, deals with a subject of both importance and interest. As to the causes of irregularity, he says that the first thing which suggests itself to the mind is the crowding of more teeth into the dental arch than it can properly contain; and there can be little doubt that the maxillæ of the present day are relatively smaller, when compared with the size of the teeth, than was the case in the well-developed heads during the early history of the human race, and that the teeth themselves have undergone during the same period far less degeneration in size than have the maxillæ. Crowding being the great

evil to be combated, it frequently becomes a question of removing a tooth or teeth to make room for the remainder; and if a regulation can be brought about by the forceps alone, it is the best practice to employ. If the deformity can be removed by the extraction of one tooth only, such as a supernumerary, decision as to procedure is simple. A lateral or even a canine may sometimes be removed and give an immediately good result, but great care ought to be exercised and judgment brought to bear before a canine is removed, as it is a tooth little liable to decay. Of course, where practicable a decayed tooth should be removed in preference to a sound one. In the majority of cases Mr. Kirby is of opinion that the six-year-old molars should be sacrificed rather than the bicuspids, because this treatment gives more room; no gaps are left in the mouth, since if the whole space is greater than that required by the irregular teeth the second molar will come forward, and approximate to the bicuspid; and, further, the six-year-old molar has a bad history, according to statistics it being far more prone to decay than any other tooth. He thought that, although no hard-and-fast rule could be laid down, the best time for this operation was between nine and eleven years of age; then a considerable interval should be allowed to elapse before any mechanical treatment is adopted, and in many instances so much improvement will follow as to render it unnecessary to do anything further.

MICROBES IN THE SOIL.

ALMOST daily fresh evidence is accumulating as to our dependence upon microbial action for the supply of vegetable food and for the conversion of refuse matter into nutriment for the various plants which supply us with vegetable food. Only a fortnight ago we gave insertion to a paper by Dr. F. B. Wells and Dr. Poore which showed in a conclusive way the extraordinary power which common earth has of retaining the organic and inorganic constituents of urine and converting them by a process of nitrification into food available for plants. Further papers bearing upon the same subject will be found in the current number of the Journal of the Royal Agricultural Society, a journal which, in the hands of its present editor, Mr. Ernest Clarke, has made rapid strides, and bids fair to be of the greatest value in disseminating a scientific spirit among our agriculturists. The paper by Dr. Munro on the nitrifying ferments of the soil is a most excellent summary of the subject, which should be read by all who are interested in the matters discussed. It shows, what is being shown almost daily, how strictly scientific have been some of the processes which have been familiar for ages, although the explanation of the process may not have been apparent. "To the natural process of nitrification as it occurs in the nitre-producing villages of India, Europe has been, and still is, largely indebted for a supply of nitrate of potash wherewith to make gunpowder. The heaps of nitre earth found near the sites of former habitations consist of house refuse mixed with porous soil, ashes from the fires, urine, &c. After long-continued exposure to Indian warmth lixiviation of this nitre earth with water furnishes a solution from which saltpetre is extracted by evaporation and crystallisation. In 1877, when France could not import saltpetre, the Government caused to be printed 'Instructions for the Establishment of Nitre Heaps,' which Boussingault makes the subject of one of his essays. ..... Heaps of soil, mixed with ashes and animal refuse arranged in layers separated by loose straw, kept under cover freely exposed to air, and watered as often as possible with urine, turned and removed once or twice if practicable, furnished in the course of some months a notable supply of nitre. If treated after the manner prescribed we learn that about 450 tons of material would in two years furnish about four tons and a half of crude saltpetre." The other paper to which we have alluded is also one of great importance, and shows again how agricultural practice has been right, although the explanation was not forthcoming. The custom to which we allude is that of sowing leguminous plants for the purpose of enriching the soil, and following the leguminous crop with one of the cereals. This custom, practised by the Romans 2000 years ago, is one which the most recent advances in bacteriology show to be correct. The paper on the Sources of Nitrogen of our Leguminous Crops, by Sir John Lawes and Dr. Gilbert, not only gives an excellent summary of what has been done by previous workers, but also affords details of their own most important experiments. It has long been known that the addition of nitrogenous manures had very little effect upon the growth of the leguminosæ, and it has now, we think, been conclusively shown that many at least of the papilionaceous leguminosæ (peas, beans, lupins, &c.) derive their nitrogen from the air circulating in the earth around their roots, and that the appropriation of this nitrogen is due to nodules growing upon the roots, which nodules are in a sense parasitic and are largely composed of bacilli. The experiment of growing leguminosæ in sterilised soil, and of showing that no vigorous growth takes place until such soil has been "seeded" with the washings of a leguminous soil containing the necessary microbes, has been repeated by Sir John Lawes and Dr. Gilbert with complete success. This dependence of plant growth upon the existence of parasitic bacillary nodules upon the roots is a fact of great interest, and indications are not wanting that this may be only the first demonstration of such dependence, and that further investigations will show that microbes minister to the nutrition of other plants in more direct ways than hitherto we have had any idea of. This paper by Sir John Lawes and Dr. Gilbert is one of some length, and we have only been able to give the baldest possible indication of its scope and importance.

CHINA MEDICAL REPORTS.

WE would call the attention of medical officers and such of our readers as are now practising, or likely to practise, abroad to the Medical Reports from China, published half-yearly by order of the Inspector-General of Customs. These reports are furnished by the Customs medical officers, and contain a large amount of useful information, some of which is not elsewhere obtainable. That for the half-year ending March 31st, 1889, for example, is one of a special series of reports. Besides dealing with the health of the communities—European and native—in the districts of Tientsin, Canton, Wuhu, and Shanghai, it contains an excellent summary of observations on enteric fever as it is encountered abroad. Under the head of clinical studies of disease as observed in China this form of fever, of course, comes under notice, and the contribution to its study embodies the consideration of a number of interesting points which are deserving of attention on account of their practical nature and the judicious way in which they are generally discussed.

THE RECENT COMPLAINT AGAINST CORONERS' COURTS.

MR. LAWSON TAIT has done good service in directing public attention to two illustrations of the tendency of coroners and their juries to exceed their functions or to forget their duties. There cannot be a more obvious duty for a coroner than to insist that no man shall be condemned in his court without being heard. Yet Mr. Tait shows without any doubt that in the case of Mr. Haynes, on which we commented at the time, the coroner, against

his own better sense, allowed the jury to censure a medical man who did not know of the inquest being held, who was, in fact, many miles distant, and who had done all that could be done for the patient. One of our contemporaries seems to think that it is a rare circumstance for a coroner to dispense with medical evidence. But it is no rare occurrence, and coroners and juries, especially where the coroner is not a medical coroner, arrive, without such evidence, but with dangerous facility, at a verdict of the cause of death. In the other case to which Mr. Tait has directed attention the inquiry had reference to the death of a young woman who some time previously had given birth to an illegitimate child. There was nothing in the medical evidence to connect the death with the birth of the child, yet the coroner thought it his duty to inquire from the sister of the woman into the delicate question of the paternity of the child, declaring it to be absolutely wrong that the father should be spared when the poor unfortunate young woman lost her life. It is true that many men escape in such case, and elude the punishment of their meanness and sin, while the woman has all the shame and the hardship to bear; and doubtless any practicable law that would tend to expose such iniquity should be welcomed. But what are we to think of a coroner who could allow his jury, or rather himself, to go into such matters, especially in the absence of the accused person, and to mix up a simple question of the cause of death with the delicate one of the cause of the birth of another person altogether. Such roving excursions bring the coroner's court into disrespect, and convince us more and more of the necessity for medical coroners.

PATIENTS AND THEIR FEES.

THE *St. James's Gazette* of the 8th inst. has a playful article on the subject of "Patients and their Fees, from the Doctor's Point of View," concluding "that if there were no patients' and relatives' whims to consider, and no bills to send in, medicine would be a delightful profession; but it is not." No doubt bills are a nuisance, though a sad necessity; but we shall not admit that they spoil "a delightful profession," and "even the whims of patients and relatives" have their uses. The study of them is often extremely interesting, and affords one of the best clues to the management and treatment of cases.

INFLUENZA A HUNDRED AND SIXTY YEARS AGO.

AN Italian correspondent reminds us of the historic epidemic of influenza in Milan between the years 1730-33, described by the contemporary physicians, Drs. Gagliardi, Bellegatta, and Crivelli. The last named, a Milanese practitioner in advance of his time, found in the air the "chief and efficient cause of the influenza visitation." In 1730 and 1733 the climatic conditions were as nearly as possible the same as those prevalent in the last two epidemics in Italy; that is to say, a mild temperature, the sirocco wind predominant, and much humidity, with fog and rainfall alternating. Dr. Crivelli's description of the symptoms of an influenza patient might (our correspondent says) be transcribed from the phenomena of to-day: "Gravedo and coryza, general languor with indisposition to exertion of any kind, loss of appetite even in presence of the daintiest viands, pain in the sinciput, giddiness, dimness of eyesight, high fever with rigors and *horripilatio* extending over the whole body; cough sometimes moist, sometimes dry enough to induce a choking sensation." These symptoms, not very grave in themselves, says Dr. Crivelli, are apt to reach an acute and even pernicious stage — "the patient finding himself suddenly oppressed with a suffocating catarrh (*un catarro soffocativo*), or, in other cases, with a pleurisy, or a pleuro-pneumonia. One patient falls as by an apoplectic stroke, another complains of intolerable cephalalgia—the old, the phthisical, the asthmatic rarely outriding the storm." It would be difficult to give a truer account of the course and issue of the influenza cases now occurring at this hour in the Alta Italia. Dr. Crivelli further shows himself ahead of his age in his severe condemnation of indiscriminate venesection, stigmatises the abuse of diluents, and rests his system of treatment on vigilantly regulated diet and the support of nature. Of course, he used heroic measures when time was precious—even bloodletting when engorgement of the circulation was a distressing symptom,—and he found great efficacy in the Hippocratic prescription: "Alvus curanda est per clysterem subducentem et frigefacientem." Other less rational measures he also recommends, taken from a pharmacopœia happily superseded. But, according to the lights available at the time, he seems to have been a thoughtful and ingenious clinician, and his treatise has a quite special interest for the student of the history of medicine.

THE DEFECTS OF SCOTCH SANITARY LAW.

SCOTCH sanitarians have certain very obvious grievances, and they have recently taken the opportunity of bringing some of them before the Lord Advocate, who has promised to lay them before the Marquis of Lothian, H.M. Secretary of State for Scotland. One relates to the impossibility of properly getting rid of accumulations of excreta and filth, a well-recognised and a fertile source of preventable disease; and their demand is that districts for cleansing should be made for this purpose in the same way as is done for the purposes of water-supply and drainage. The two latter are largely arranged with a view to local conditions of topographical formation, with which a mere question of cleansing would have little or no concern; and we believe that in this country difficulty has arisen in dividing parishes for mere purposes of scavenging in the same way as has been done where special drainage districts have been formed, the new area being financially and rateably distinct for the particular purpose specified. But the Lord Advocate, whilst hinting at such difficulties, practically admitted that the only alternative was to allow the nuisance to occur, then to seek its abatement, and then let it recur. No one in the present day would for a moment contend that this constituted sanitary administration, and hence the difficulty is one which ought to be faced and dealt with. Another grievance is that, unlike their English colleagues, the Scotch medical officers of health are not periodically provided with the necessary statistical data from registrars of births and deaths as to the births and causes of death, which would enable them properly to compile the statistics required, not only for their own purposes, but for the purposes of the Board of Supervision. This should certainly be attended to, and it would be well if, in any amendment of law as to this, registrars in England could be compelled to give to medical officers of health more details as to births, such as the question of sex, than is now required by the English Registrar-General. Accurate statistics giving details such as these are often not procurable, even by English health officers. Another grievance is that whereas three English permissive Acts were passed in 1889 and 1890—namely, those relating to compulsory notification, the Infectious Diseases Prevention Act, 1890, and the Public Health Amendments Acts, 1890—and whereas the former of these was made applicable to Scotland, the two latter were not extended in the same way. The Scotch sanitarians, whose views were advocated by Dr. Littlejohn, Dr. J. B. Russell, Dr. J. C. McVail, and Dr. Campbell Munro, declare that many of the clauses in the latter Acts had already been adopted in local Acts with

the approval of the Board of Supervision; that the advantages of the Act relating to notification cannot be reaped without the further benefit of the other Acts, and yet that Scotland was, without explanation, excluded from their benefits. One thing is certain, and that is that those who know the real sanitary needs of Scotland have now indicated to the Scotch Secretary of State a few simple expedients by which the sanitary administration of their country could be materially benefited, and without which Scotch public health must necessarily suffer to an extent that is no longer permissible in England; and it certainly behoves those who are in authority to see that the comparatively simple, although very important, demands made should be granted with a view to the removal of conditions tending to ensure nuisances and disease and to the prevention of those forms of sickness and death which are now proved to come within the scope of efficient sanitary administration.

DR. COLLIE AND THE ASYLUMS BOARD.

WE are glad to state that, notwithstanding an apparently organised and ungracious opposition, the Metropolitan Asylums Board have recognised the fairness of awarding a pension to Dr. Collie for the eminent services he has rendered to the profession and the public while at the Eastern Hospital and elsewhere in connexion with diseases of an epidemic nature. Dr. Collie has been granted the sum of £210 annually as a pension. It is to be hoped that the good work he has done in organising the methods of combating small-pox and of investigating the nature of virulent epidemic diseases will be only preliminary to further efforts on his part to elucidate some of the obscurity with which they are still surrounded.

THE ANALYSIS OF PEPTONES.

THE compounds obtained in the digestion of meat by acid pepsin, although similar in composition, are by no means identical in chemical properties or nutritive value. Any analytical method therefore which gives a tolerably accurate account of the composition of commercial peptone preparations must prove one of importance and value to the practitioner, seeing that peptones are largely employed as nutrients in cases of enfeebled digestion and in wasting diseases. At the last meeting of the Society of Public Analysts held at Burlington House, Messrs. C. W. Heaton and S. A. Vasey of Charing-cross Hospital contributed an interesting paper on this subject. These chemists have devoted their attention to the methods which have from time to time been proposed, and while they recognise in Denaeyer's method[1] the best that has been devised, and one by which they have been mainly guided, yet they are led to think from their own experimental observations that the process of which the following is an outline is simpler and more satisfactory. A convenient quantity of liquid peptone is gradually dropped into strong alcohol. The precipitate, consisting of albumens, gelatine (coagulable), albumose, and peptone, is dried and weighed. The filtrate, containing meat bases, creatine, &c., and uncoagulable gelatine, is decanted and reserved for further treatment. After weighing the alcoholic precipitate, it is dissolved in water, and the insoluble albumens filtered off and weighed. An aliquot portion of the filtrate, which now contains only albumose, gelatine, and peptone, is next treated with saturated ammonium sulphate solution and the precipitated albumose and gelatine weighed on a tared filter. The adherent sulphate is estimated by means of barium chloride and deducted, together with the filter, from the total weight. Another portion of the filtrate is treated with specially prepared copper hydrate emulsion, which, with albumose, forms an insoluble compound. The precipitate is treated for nitrogen by the Kjeldahl process. Multiplied by the factor 6·33, this gives albumose. The filtrate from the copper emulsion, now free from albumose, is concentrated, and then treated with ammonium sulphate, heated and cooled. By careful manipulation the gelatine which separates may be made to adhere to the sides of the beaker, washed with ice-cold water, and weighed. Adherent sulphate is estimated and deducted as before. The quantity of gelatine and albumose being ascertained, that of peptone may obviously be gained by difference. Part of the alcohol filtrate (*vide supra*) is evaporated to dryness, taken up with water, and treated with ammonium sulphate for the separation of uncoagulable gelatine. Another portion may be evaporated to dryness and weighed, and another taken for the estimation of nitrogen. The following data are furnished by this process: albumens coagulated by alcohol, gelatine (uncoagulable and coagulable), albumose, peptone, and substances soluble in alcohol, such as creatine, urea, &c. Total nitrogen, water, organic matter, and mineral matter are estimated in the usual way. The authors give to Denaeyer the credit of first recognising in peptones a variety of gelatine soluble in alcohol, and they also add that his process was the first to provide for the estimation of gelatine, or glue-peptone. A knowledge of the presence and amount of this body is desirable, inasmuch as it is said not to present the nutritive value of either the albumens or their peptones.

[1] See THE LANCET, May 2nd, 1891.

DEATH OF PROFESSOR VON BRÜCKE.

IN the death of Ernst Wilhelm von Brücke, which took place from influenza at Vienna on Jan. 5th, physiology has lost one of its most illustrious followers. Professor Brücke was born in 1819, and had therefore attained his seventy-third year. He studied medicine at Heidelberg and Berlin, and in 1843 became assistant in the Museum of Comparative Anatomy at the latter University under the direction of Johannes Müller. In 1848 he succeeded Burdach as Extraordinary Professor of Physiology at Königsberg, and the following year became Professor of Physiology at the University of Vienna. There he has remained, steadily working in the sphere of science, and becoming the recipient of many honours. Professor Brücke contributed considerably to physiological literature as well as to anatomy, his works comprising two volumes of lectures on physiology, researches on the blood, on electrotonus, on the function of speech, on colour-vision and other optical questions, as well as anatomical studies of the eye, and, quite recently, a handbook of artistic anatomy.

YELLOW FEVER.

YELLOW FEVER is a disease which prevails in the tropics principally between 25° north latitude and 10° south. It is always found more or less on the Guinea coast of Africa, in Brazil, Mexico, and in the southern part of the United States. Its infectious nature is supposed to be shown by the fact that it overflows these tropical limits every now and again and reaches subtropical regions. It is not known, however, in temperate climates. Certain cities like New Orleans, Rio Janeiro, and Santos are frequently scourged with this disease. Lord Salisbury has received a despatch from the British Consul at Santos depicting the state of affairs prevalent there, and pointing out that yellow fever, together with small-pox, largely prevails. It states that "the former is chiefly caused by the unhealthy state of the harbour, and the monstrous delays experienced in unloading vessels. Nearly two-thirds of the cases attacked end fatally." It is difficult to ascertain the exact etiology of

the disease, whether, for instance, it is due to malarial or atmospheric conditions, or to fæcal accumulations, and consequently no treatment which is known is able to adequately cope with it. Mr. Edwin Lawrence, in a communication we have received, points out that it is known that at New Orleans so soon as the first frost appears yellow fever disappears, and sea captains know that if they can steam for colder regions the patients on board recover and no fresh cases arise; and he has suggested a mode of treatment by placing the patients, even in tropical countries, in an artificial ice atmosphere on board ships, to place ice in the patients' mouths, and to ice all foods and drinks. The idea seems at least worthy of a trial, especially as it is not difficult in any climate to keep a chamber at freezing-point, or at any temperature below it, and the expense is comparatively small. It is unfortunately the case that the etiology of this fatal disease is as little known now as it was at the time of Columbus, and its effects have been scarcely, if at all, alleviated. It forms one of those unexplored regions of the dark continent of medical science concerning which much investigation is still required by the scientific minds in the profession.

THE FOLKESTONE HEALTH OFFICER.

THE attitude adopted by the majority of the Folkestone Town Council in regard to the appointment of a medical officer of health is not one which is calculated to inspire confidence in the minds of the many visitors who have been in the habit of frequenting that town in quest of health and recreation. The discussion has related to the question of salary, and the dispute has had to do with either a remuneration just sufficient to compensate for a perfunctory performance of the ordinary duties of the office—that is to say, as one member put it, to secure one hour's services for six days in the week,—or, on the other hand, to indicate by a somewhat higher salary that Folkestone desires to attract to the office some skilled practitioner who will really make the health requirements of the place a constant care and study. The majority prefer the former class of appointment, and decline to pay more than "6s. or 7s. an hour" for one hour's services every week-day. More than once the Local Government Board have had to intervene in connexion with preventable disease in and around Folkestone; and it would certainly conduce to the sanitary interests of the place if it were understood that the Town Council desire for the future to place their town above suspicion as regards its sanitary administration.

THE PHRENIC NERVE.

IN the recent number of *Brain* Dr. John Ferguson of Toronto has a note on the function of this nerve. He had under observation some time ago a patient suffering from progressive muscular atrophy, in whom there was an affection of the diaphragm. The phrenic nerve was examined after the patient's death, and while some fibres were found to be completely degenerated, others were undergoing degeneration, and a third set were quite healthy. He drew the inference that the phrenic nerve was not wholly motor, but in part sensory. To support his hypothesis, he examined the condition in a cat after division of the right phrenic nerve, and three weeks later, on opening the abdomen, the sensibility of the diaphragm was found much impaired. The nerve was completely degenerated. In another experiment the posterior roots of the third, fourth, fifth, and sixth cervical nerves were divided, and subsequent examination of the nerve showed that there was well-marked degeneration of about a third of its fibres. Before the animal was killed it was found to be anæsthetic on the side of its diaphragm corresponding to which the posterior roots had been divided. Dr. Ferguson concludes from these facts that the phrenic is to be regarded as a mixed nerve, and that in inflammations involving the diaphragm or the serous membranes attached to it we may look for sensory disturbances, often of wide distribution. The phrenic being sensory, from irritation of that nerve, pain in the cervical region where it arises is to be looked for, and in this way he accounts for severe pain at the back of the neck and in the shoulder in a patient whom he had under his care suffering from an abscess of the liver which subsequently proved fatal.

HOSPITAL SUNDAY IN LIVERPOOL.

THE second Sunday in the new year has since the year 1871 been observed as Hospital Sunday in Liverpool. Its recurrence this year was therefore invested with unusual importance, Hospital Sunday having thus completed its majority in Liverpool. The day, though cold, was fine and bright, but the state of the streets, frozen and slippery in the extreme, had a marked effect in reducing the number of church and chapel-goers. Still it is gratifying to note that the collections show their usual munificence. At the head of the list is the Sefton Park Presbyterian Church, the minister of which is the Rev. John Watson, one of the Honorary Secretaries of the Hospital Sunday Committee. Here the collection amounted to the excellent total of £666, an increase of £25 over the amount realised last year. Next comes the Renshaw street Unitarian Chapel, which contributed £639. Up to Monday evening the treasurer had been advised of collections amounting to upwards of £2000, and so far as can be ascertained the total amount promises to be a fair average of those of recent years.

THE PHYSIOLOGICAL EFFECTS OF PARACENTESIS.

THE physiological effects of tapping the abdomen in cases of ascites from atrophic cirrhosis of the liver have been studied by Dr. Gravirovski, who gives the details of his observations in a recent thesis for the degree of M.D. in the Medico-Chirurgical Academy in St. Petersburg. He found that the assimilation of nitrogen was increased by the operation, but that of the fatty elements of food was diminished; the metabolism of the nitrogenous principles was also increased, and the loss of albumen in the blood was soon compensated by the greater assimilative power for this nutritive principle. He comes to the conclusion, too, that more is gained by early than by late paracentesis.

EXPERIMENTS AT THE PHARMACOLOGICAL INSTITUTE AT DORPAT.

A RECENT volume of the Transactions of the Pharmacological Institute at Dorpat, edited by Professor R. Kobert, contains two experiments by Nicolai Kruskal, one on some combinations with saponin, and the other on the corn cockle (Agrostemma githago). The former partially concludes a series of experiments by the editor himself, and contains a number of new and important observations in chemistry, toxicology, and hygiene. Dr. Kobert had found that saponin, as described by various authors, especially the saponin extracted from quillaja bark, is not an elementary body, but a mixture of two substances, which are both poisonous, and which he calls respectively quillaja acid and sapotoxin. The researches of Kruskal are a valuable addition to our knowledge, as they have shown that the so-called saponins are a whole series of bodies, corresponding to several different general formulæ. Every series contains several members which, though they are identical as far as elementary analysis goes, and give the same chemical reactions, yet on pharmacological examination show a

marked difference in their toxic intensity. The sapotoxin of the corn cockle possesses a further physiological characteristic distinguishing it from all other kinds of saponin in the fact that it may be absorbed both by subcutaneous tissue and by the alimentary canal. The seed of the corn cockle contains, however, as is well known, besides its poison, a large proportion of nutrient matter, and attempts have therefore been made for many years past to introduce it as an article of food for beast and man. Such a use of the seed has become quite possible since Lehmann and Mori demonstrated that the poison may be rendered innocuous by the simple process of roasting the meal in iron pans. Natanson has also shown by his experiments in Kobert's laboratory that the non-poisonous kernel, which gives a particularly fine meal, is almost enveloped by the poisonous portion of the seed. The practical value of this question is best exhibited by the concluding paragraph of Kruskal's observations on his experiments on agrostemma. He informs us that the Russian military authorities permit the purchase of bread containing an addition of half per cent. of corn cockle, so that the soldier, in his daily ration of 1200 grammes of bread, takes 6 grammes of it, a quantity which may have a seriously toxic effect.

INFLUENZA IN ITALY.

AT Milan one hundred and five deaths from influenza between Saturday, the 2nd inst., at 4 P.M. and Sunday at 4 P.M., were registered on the latter of these days. The registration office is hardly equal to the task of entering the cases reported to it; funeral carriages are insufficient in number; and the gravediggers at the cemeteries, in spite of repeated reinforcements, are still calling for more hands. The Ospedale Maggiore is filled to repletion, and the same is announced from all the branch hospitals and lazarettos. At Como the mortality is almost as high, though, singularly enough, at the resorts on the lake itself the disease is inconsiderable. At Venice scarcely a family has escaped, and most of the public offices have their *personnel* reduced by one-half. At Bologna the malady is equally diffused, though the mortality is not so great in other cities. At Rome it is spreading, several thousand cases occurring daily, and in the Carceri Nuove (new prisons) four-fifths of the inmates, convicts and keepers, are on the sick list. Hitherto, however, the deaths have been comparatively few. Florence, which suffered so severely in 1890, has proportionately few cases, and these comparatively mild.

NEW RESEARCHES ON VARIOLA VACCINE.

IN connexion with the commission now being held on the efficacy of vaccination Chauveau's experiments are interesting. An abstract of them is given in the *Boston Medical and Surgical Journal* for Dec. 3rd, 1891. His experiments were made with the product of the eighth transmission from heifer to heifer, and were exclusively performed on subjects of the bovine species. The results of his investigations are briefly as follows: 1. Vaccine virus never gives small-pox to man. 2. Variolic virus never gives vaccinia to the cow or horse. 3. Vaccine is not even attenuated small-pox, and cannot be compared to the benign anthracoid infection which is communicated to animals by inoculation with attenuated anthracoid virus. 4. If vaccinia is a derivative of small-pox, it is by reason of a radical transformation of the variolic virus, a transformation thus far unattainable by experimenters. 5. These last propositions lead to another more general one, which is this: the attenuation of virus is not a physical process which can be identified with the transformation of virus. If these views are correct it may very naturally be asked, How does vaccine virus confer immunity from small-pox? On consideration of the results of experimental preventive inoculation we may divide them into three methods, as follows: (*a*) Fabrication of prophylactic substances by pathogenic agents outside of the organism which is to be rendered immune, and the introduction into this organism of the said substances in sufficient quantity to confer immunity, these substances having been by the proper manipulations freed from the virulent elements, properly so-called, and rendered inoffensive. (*b*) Fabrication, in the organism to be protected, of prophylactic substances by the pathogenic agents, with the germs of which inoculation has been made under conditions which ensure the benignity of their infectious effects. (*c*) Fabrication of the vaccinal substance by a virus very like the virus against which immunity is sought, but belonging to another species. In this latter category Chauveau places the microbe of chicken cholera, in its function of conferring immunity against charbon. Here also he would place the virus employed as a preservative from small-pox. Whatever, in fact, may be the origin of vaccine, though we were to admit it to be a derivative of small-pox, it none the less constitutes in reality a morbid species distinct from the latter. The two viruses—vaccinal and variolic—are irreducible into one and the same infectious entity.

DESTRUCTION OF THE CUNEUS.

A CASE in which the cuneus on one side was destroyed with almost the accuracy of a physiological experiment is related by Dr. Eskridge in the *Medical News* (Philadelphia). The patient was a strong and healthy man, who had received a bullet two and a half inches in front of the occipital protuberance, and half an inch to the left of the middle line. It was extracted a few hours after the accident, and was found lying just beneath the cortex. Two days later there was right homonymous hemianopsia up to the middle line, but the pupils reacted normally and the fundi appeared healthy. Mentally the patient was dull and slow, and he gradually sank into coma, and died on the fifth day. At the necropsy the wound was found healthy, but a good deal of hæmorrhage had taken place about it. The wound in the brain was two inches in diameter. Behind, it extended to within an inch and a half of the tip of the occipital lobe. On the median surface a thin layer of brain substance remained, slightly thicker anteriorly than posteriorly. The cuneus was in fact almost completely destroyed; and while the superficial part of the angular gyrus was uninjured, there was some damage to a part of its substance beneath the surface. The case is interesting as lending support to the view that the cuneus of one side represents the half of each retina on the same side, and consequently the opposite half of each field of vision.

SUBCORTICAL LESIONS AND SPASTICITY.

IN the *American Journal of Nervous Diseases* Dr. C. K. Mills records a case of some interest and one which supports the view that an extreme spastic condition of the limbs is usually associated with a subcortical brain lesion. The patient was a man who two or three years before he came under observation had an attack in which he lost the use of his right arm and leg. He did not become unconscious, but he was never able to stand afterwards. About a month later he had a fit commencing in the right arm during which he lost consciousness. Subsequently he had several similar attacks. He had some tremor of the tongue. The faradaic and galvanic irritability of the muscles on the affected side were retained. The knee-jerk on the right side was much exaggerated, and there was foot clonus, but the most persistent and marked symptom was a continuous spasticity of both arm and leg, especially the latter, on the paralysed side. He died of a hæmorrhage into the right hemi-

sphere which burst into the lateral ventricles, but the condition of the left hemisphere, which gave rise to the old attack, and was the cause of the paralysis of the right arm and leg, was the most important. To external examination nothing was evident except a dark spot, about one-fifth of an inch in diameter, at the bottom of the upper extremity of the central fissure, but on exploring the lateral ventricle a yellowish black area one-third of an inch in length was noticed in the white substance composing the curved roof of the ventricle, about the middle of its antero-posterior extent. This was found to be a hæmorrhagic cyst, lying in the part of the sub-cortex related to the middle and upper thirds of the anterior central convolution, and it was an arm of this cyst which extended to the spot of degeneration already described in the fissure of Rolando. Dr. Mills records the case as lending support to the idea that the predominant symptom in cases of subcortical lesion is persistent tonic spasm, and that a lesion such as existed in this case—partly destructive and partly irritative—has such a condition as its most characteristic accompaniment.

IODINE INJECTIONS IN MALIGNANT PUSTULE.

DON A. M. AYUSO publishes in *El Siglo Médico* three interesting cases of malignant pustule, which he successfully treated by means of hypodermic injections of iodine. In two of the cases the seat of the affection was the neck, which is usually considered a particularly dangerous situation. In one of them, indeed, there were symptoms of pressure on the larynx. In both cases incisions and powerful caustics had been previously applied without appearing to have any effect before the iodine treatment was resorted to on the fourth day from the commencement of the symptoms. The pure tincture was used in one case, while in the other it was diluted to half strength. The injections were made around the tumour at intervals of from two to three centimetres, and were not repeated. In a third case, which was that of a little child, the solution used was composed of four parts of the tincture of iodine, one of iodide of potassium, and eight of water, about seventy-five drops being injected altogether around the pustule, which was situated on the forehead. In this case and in one of the others an attack of convulsions followed the injections. Notwithstanding this, Dr. Ayuso is in favour of giving the injections of a considerable strength, so as to kill the virus at once. The needle should be inserted to the depth of from two or three centimetres in the œdematous zone bordering upon the indurated tissue. It is well, too, to press the piston of the syringe down at once rather than gradually.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Professor Jolly has been made a Medical Privy Councillor. Dr. Strassmann has taken temporary charge of the Pharmacological Institute. Dr. Hans Thierfelder has been recognised as *privat-docent* in Chemical Physiology.

Breslau.—Professor Kast of Hamburg has been offered the Directorship of the Medical Clinic, in succession to Dr. Birmer, who is retiring on account of his health.

Halle.—Dr. Bunge will probably succeed Professor Alfred Graefe, who is retiring, and to whom he has been for many years principal assistant.

Kieff.—Dr. Yakimovich has been promoted to an Extraordinary Professorship of Histology and Embryology.

Pavia.—Dr. T. Clivio has been recognised as *privat-docent* in Midwifery and Gynæcology.

Pisa.—Dr. F. Denti has been recognised as *privat-docent* in Ophthalmology.

Prague.—German University: Dr. F. Hueppe has been promoted to the Professorship of Hygiene. *Bohemian University:* Dr. F. Michl has been promoted to an Extraordinary Professorship of Surgery.

Rome.—Dr. E. Manara has been recognised as *privat-docent* in Ophthalmology.

Strasburg.—Dr. Jacobj has been recognised as *privat-docent* in Pharmacology.

Valencia.—Dr. Sloker y de la Pola, Professor of Anatomy, has been appointed to the Professorship of General Pathology.

Vienna.—Dr. Max Gruber has been promoted to the Ordinary Professorship of Hygiene.

Zurich.—Dr. Hugo Ribbert of Bonn has been appointed to succeed Professor Klebs in the chair of Pathology and Pathological Anatomy.

MR. ALBERT JAMES BERNAYS, Ph.D., Professor of Chemistry at St. Thomas's Hospital, who died on the 5th inst., at his residence, Acre House, Brixton, S.W., after a few days' illness from bronchitis, as already briefly recorded, was born in London in 1823, and was educated at King's College School and at the University of Giessen. He was Doctor of Philosophy of Giessen, Fellow of the Chemical Society, Fellow of the Institute of Chemistry, Lecturer on Agricultural Chemistry, 1845, and Lecturer on Chemistry and Practical Chemistry at St. Mary's Hospital Medical School, 1854–60. He had been Lecturer on Chemistry, Practical Chemistry, and Practical Toxicology at St. Thomas's Hospital since 1860; he was Public Analyst for St. Giles's, Camberwell, and St. Saviour's, Southwark; and late Examiner in Chemistry to the Colleges of Surgeons and Physicians. Dr. Bernays was the author of many works on Chemistry. He was cremated at Woking.

MANY officers of the Medical Staff will hear with great regret of the death of Brigade Surgeon Lieutenant-Colonel S. E. Maunsell, in the Jamaica command. The deceased officer had completed his tour of service and was about to embark for home, in anticipation of his early promotion, when he was attacked with yellow fever, of which he died. He was an excellent officer in every way, and enjoyed a considerable reputation professionally, more especially in ophthalmology. His skill as an operator was considerable, and he unostentatiously effected a large amount of good among the natives in the Umballa division of the Punjab, India, an account of which and other matters he embodied in a modest little work, entitled "Notes of Medical Experiences in India, principally with reference to Diseases of the Eye." Surgeon Lieut.-Colonel R. N. Malley has been appointed senior medical officer on the staff at Jamaica.

WM. CHARLES HENRY, M.D., F.R.S., who was a chemist and physician of great distinction, and for many years connected with the Manchester Infirmary, has died at the age of eighty-eight years. He was born on March 31st, 1804, took his academical degree at Edinburgh University in 1827, and spent some time in the study of medicine on the Continent. He was the author of certain works on the physiology of the nervous system, and of many papers and pamphlets relating to his studies in chemistry.

WE regret that, through an inadvertence, the name of Mr. Bryant, who attended as President and representative of the Royal College of Surgeons, was omitted in the account published in our last issue of Professor John Wood's funeral.

THE first session of the Congrès Périodique International de Gynécologie et d'Obstétrique will be held at Brussels, Sept. 14th to 19th, 1892. Mr. Alban Doran has been chosen to act as secretary for England.

THE death has been announced of M. de Quatrefages, the eminent ethnologist, aged eighty-two. He was author of "Crania Ethnica," and the standard work "Études des Races Humaines."

SIR ANDREW CLARK will resume his instructions in Clinical Medicine at the London Hospital on Tuesday, 19th inst., at 2 o'clock.

WELLINGTON COLLEGE SORE-THROAT.

BY J. G. BARFORD.

DURING the twenty-four years I acted as medical officer to Wellington College I had numerous opportunities of watching the progress of epidemic diseases as they affect schoolboys and the particular form of sore-throat occurring from time to time at Wellington College, which has puzzled the best physicians and surgeons of the latter half of the nineteenth century, from London and elsewhere, whom it was my privilege to meet and coöperate with from the first year of the opening of the College in 1859 to the end of 1883. But at no period of these twenty-four years does it appear that the boys have suffered in such numbers, nor, apparently from Dr. Bristowe's report, more severely than they have during the third term of the past year. The admission of 244 boys into the sanatorium, as stated in the report—that is, more than half of the school—is an occurrence, I believe, unprecedented in the history of the College. When it is remembered that the boys did not reassemble till the latter half of September and were dispersed at the beginning of December, the actual period of residence amounted only to ten weeks, making an average admission into the sanatorium of from twenty-four to twenty-five a week. The governors of the College express their satisfaction that, in the opinion of Dr. Bristowe, "the recent outbreak of illness cannot be attributed to defective drainage or water-supply, but rather to the almost unprecedented rainfall."

The chief importance of this sentence turns on the "almost," for it is a candid admission that there have been previous heavy rainfalls, but on these occasions the heavy rainfall has not been productive of the same illness or fatality among the boys. Three deaths in one year from diseases or their complications believed to be preventable, and which cannot be referred, according to Dr. Bristowe, to defective drainage or water-supply, are probably unprecedented in the history of our public schools. Is it possible that more or less rainfall can make this difference? I would ask, Can Dr. Bristowe be in earnest in leading the governors to entertain such an idea? Dr. Bristowe states in his book on "The Theory and Practice of Medicine" that "diphtheria is a disease of all countries and all seasons" (heavy rainfall or not), and that "there is reason to believe that the sanitary state of houses or localities, and the condition of health of those who are exposed to its poison, have much influence over its development." How can Dr. Bristowe reconcile the teaching in his book with the opinion he has expressed to the governors of Wellington College? I have read the article on Diphtheria in Dr. Bristowe's book (1884 edition), and cannot find a syllable on the influence of rainfall in the production of diphtheria. It is evident that Dr. Bristowe has attached no importance to rainfall in the past; or, as a lecturer on medicine and the author of a book on the "Theory and Practice of Medicine," he would have made some reference to it before. It appears to me most unfortunate for the reputation of Wellington College that Dr. Bristowe can find nothing further than this to explain the outbreak. Does the poison or germ which sets up diphtheria, in Dr. Bristowe's judgment, come down from the clouds with the rain to Wellington College? or is it that he would have us believe that the rainfall has some peculiar disturbing influence on the soil at Wellington College, creating it thereby into a cultivating medium for the poison which has recently presented itself in so virulent a form? Dr. Bristowe seems to me to be on the horns of a dilemma, and has to admit one or the other cause. Any theory he may have of the possible introduction of the disease from the village without is shaken by the fact that its occurrence in the College appears to be anterior to two cases outside the College grounds. In the past I have seen septic throats going on to diphtheria occur over and over again among the boys when no trace of the disease could be found among the residents outside the College boundaries. My twenty-four years' experience at Wellington College taught me that the boys conveyed infectious illness to the residents around rather than the reverse. Dr. Bristowe states that he cannot fix the date of the occurrence of the first case at the College; but if he will go into dates accurately he will find, I think, that the boys were infected before any case whatever occurred among the residents disconnected with the College. The Notification Act is in operation in the district, and definite information available for Dr. Bristowe. If he will go carefully into the notes, and especially the temperature charts, of each case admitted into the sanatorium during the term, he will have no difficulty in fixing the date of the first case in which the specific virus displayed itself. Anyhow, by this method I have in the past found no difficulty in fixing approximately the date of the first occurrence of septic sore-throat in the form it presents at Wellington College, which in the first instance does not present definite signs of diphtheria, for the diphtheria is engrafted on to septic throats as a secondary disease. A comparison of this approximate date with the date of the case first notified from the village would settle the point which Dr. Bristowe's report leaves so obscure. In his book he admits the elevation of temperature as a marked feature at the onset of this disease, and I find from the comparison of 100 charts that the temperature at the onset is very uniform. Here there is reliable data for comparison, of which he does not appear to have availed himself. The report leaves Wellington College uncertain as to the origin of a disease, and would teach that whenever the rainfall is in excess of an average, the inmates of Wellington College may have again to seek a home elsewhere.

(To be continued.)

INFLUENZA.

SELDOM in the records of previous pandemics of influenza has a third annual recurrence of this remarkable disorder exhibited such virulence as at the present time. Indeed, previous experience has mostly been to show that after the first outbreak the malady may recur in a more or less sporadic manner, and then disappear almost entirely. But there is no question now that the recurrence of this winter, which commenced in this country in Cornwall and in Scotland, has equalled in severity the first outbreak of the winter of 1889–90, as well as in the extraordinary diffusion of the disease which has taken place during the past fortnight. So widespread has this extension been that it is difficult and bewildering to follow its course from day to day, so as to give any coherent account of the progress of the pandemic wave.

There is no question that the influenza has once more gained a marked foothold in the metropolis. For weeks past, it is true, the Registrar-General's returns have given a certain number of deaths directly attributed to the disease, but last week this number rose remarkably, reaching 95, as compared with 37 in the preceding week, and 19 in the one before that. Medical practitioners are again overburdened with engagements, and nursing institutions are being taxed far beyond their resources. In Kensington an outbreak has occurred in the infirmary, just as last week at the Fulham Infirmary, and the disease is very prevalent in the neighbourhood. In the southern and western suburbs it is also rapidly extending, especially in Hounslow, Isleworth, and Ealing. Cases have occurred in the Hampstead Workhouse, and in the Chelsea and Wellington Barracks. The General Post Office departments, which suffered so severely two years ago, are again crippled by the sickness.

The general mortality of London for the past week was 32·8 per 1000, which is about the average for the past three weeks, the deaths referred to diseases of the respiratory organs amounting to 1084, or 455 in excess of the average.

In the home counties influenza is still very prevalent. It continues to spread in Berkshire and in Bucks; in Surrey it still persists in Chertsey and Walton; in Herts it is very

prevalent in Watford, and most severe in Kent and Essex. In these latter counties the outbreak seems to be especially virulent. Canterbury has suffered more than on the two previous occasions; and the agricultural as well as the urban communities in that district, and in and around Maidstone and Ashford, are also widely attacked. It prevails, further, in Chatham and Rochester, and still exists in Dover, Walmer, and other parts of the coast. In Essex it is generally prevalent, the villages on the coast suffering especially, but the epidemic has caused many deaths in Chelmsford, Colchester, Halstead, and other places.

In the southern counties, Sussex and Hampshire, especially Porchester, Portsmouth, and Southampton, have suffered severely; whilst in Dorset the outbreak has been attended with great fatality.

In Norfolk the epidemic has appeared at Norwich, King's Lynn, and many of the country districts; in Suffolk, at Lowestoft and Bury St. Edmunds, where the mortality has been very high. It is very prevalent in Cambs and Hunts, and in Northamptonshire, especially around Peterborough. At Leicester we are informed by Dr. Tomkins, the medical officer of health, that "for more than three weeks scattered cases of influenza have occurred, but only during the last week has it become at all prevalent, and at present the epidemic has not spread to anything like the extent of last year, nor is the type of so severe a character. Only one death has hitherto been reported." This mildness of type, which unfortunately has not been the case generally, is also noted in the outbreak at Birmingham and in South Lincolnshire.

In Worcestershire cases are very numerous at Kidderminster and its vicinity; in Staffordshire, at Tipton (chiefly among children) and Stafford and neighbourhood. Further north we find that the outbreak—which a month back was so prevalent in Newcastle—is now spreading through Yorkshire, especially around Richmond, Darlington, and Leeds; and it has appeared in Lancashire at Bolton and Liverpool. In Cheshire there is much sickness; and in Mold, in Flintshire, and other parts of North Wales.

The epidemic is subsiding in the towns and villages of South Wales—as at Cardiff, Aberdare, Carmarthen, Tredegar, and Abergavenny, but it still prevails in Monmouth. It has appeared in Bath, and still exists in an aggravated form in Somerset, Wilts, and Devon. Thus it will be seen that the disease prevails over the greater part of the country.

From Scotland it has practically disappeared. In Ireland it prevails at Limerick, Fermoy, and Baltimore. Of the Channel Islands, Guernsey has been the most seriously attacked.

The accounts furnished from the Continent show that influenza is still raging in many parts, and, indeed, in some towns—e.g., Hamburg—it has reappeared after a month's abeyance. In France it prevails in all parts, from the Pas de Calais in the North, where it is extremely severe, to Marseilles and the Riviera in the South, where its type seems to be milder. In Paris it continues to spread; at Montpellier it is largely on the increase. In Germany the epidemic has been present for several weeks at Berlin, where it is now on the decline, but where it has attacked the horses. At Munich it has only recently broken out, and is spreading rapidly. Of other cities where it has prevailed or is still occurring may be mentioned Kiel, Breslau, Dresden, Magdeburg, Brunswick, Stettin, and Cologne. In Denmark the outbreak has been especially severe; at Copenhagen itself the number of cases has been enormous, and the attacks have been characterised by great suddenness of onset. In Belgium it is very general, being severe at Brussels and Luxemburg, and seriously interfering with trade at Mechlin and Ghent. It is still causing great mortality in the lunatic colony of Gheel. In Austro-Hungary it still exists in Vienna, and at Pesth it seems to be unusually virulent. In Italy, where it has hitherto chiefly attacked the northern cities, it is spreading in Florence, Venice, and Rome, and is getting much worse in Naples. It has reached Turkey and Greece, for many cases have occurred at Constantinople and Athens. At Malta the Mediterranean Squadron has suffered severely from its effects. It has ceased to occur at Gibraltar, but prevails in many parts of Spain and Portugal, where, however, it is on the decline.

Across the Atlantic influenza is at present widely diffused over the United States, both in the north and south. It spread rapidly at the opening of the New Year in New York, Boston, and Philadelphia; has prevailed, but not with its former severity, in Chicago; and is especially rife at St. Louis, Kansas City, and Memphis. In Canada the type of the outbreak, which is now subsiding, has been mostly mild.

MEDICAL DEFENCE UNION, LIMITED.

THE Secretary of the Union sends us for publication the following report:—

A representative and well-attended meeting of the members of the Medical Defence Union was held at the registered offices of the company on Jan. 7th, for the purpose of confirming a resolution altering some of the articles of association. Mr. Lawson Tait presided, and in moving the confirmatory resolution explained that the proposed alterations, unanimously decided upon by the members on Dec. 15th last after much deliberation, had been improperly described as a reconstruction of the company. They were nothing of the sort, but simply an example of an every-day occurrence of a company finding it desirable to alter some of its working rules, and doing so.—Dr. H. Woods opposed the resolution, and urged that the first meeting was technically illegal. In a short but censorious speech he reflected generally upon the President and Council, who, he said, sought to alter the articles in such a way as would enable them, if they thought fit, to decline to defend anyone but themselves and their friends; he referred particularly to the proposals as to election of the Council.—Dr. Saundby regretted that Dr. Woods saw things in a false light and in a way that the vast majority of his professional brethren did not and could not view them. The course Dr. Woods was adopting in the present instance was on a par with that which he had taken in connexion with the affairs of the British Medical Association and in other matters. It was an unfortunate attitude of mind which led him to impute *mala fides* to his colleagues on the simplest matters, and, after making unfounded assumptions against his professional brethren, to proceed to build up a casuistical superstructure thereon.—Mr. Lawson Tait, in reply, referring to the technical objection, pointed out that Dr. Woods had already been informed that the Court of Appeal, in a similar case, had decided the very point that Dr. Woods had raised, and decided it exactly opposite to his contention. The present proceedings were quite in order. The members of the Union perfectly well understood Dr. Woods; and that they were capable of managing their own affairs in their best interests was shown by the fact that, while two proxies only had been lodged in favour of Dr. Woods, more than 900 had been lodged in favour of the proposed changes.

The resolution was then put and passed, Dr. Woods alone dissenting.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Nottingham Urban District.—Dr. Boobbyer's report comes late, but the cause is one that will be appreciated, and especially in his own district. It is practically a second edition, in which he has utilised the returns of last year's census, and has thus dealt with the large statistical discrepancies which those returns divulged. The Registrar-General's estimate of the population of Nottingham turned out, in fact, to be no less than 40,233 in excess of the actual figures given by the census, and this accounts for a death-rate of 1·5 per 1000 higher than that which the estimated returns indicated; the real corrected rate for 1890 being 19·2 per 1000 living. The zymotic rate was low as compared with that for the large towns, being 1·8 per 1000, and it is reported that the new hospital at Bagthorpe, erected by the corporation, is now completed. During 1890, the notified cases of disease included 984 of scarlet fever, 348 of enteric fever, and 64 of diphtheria; and it is a somewhat remarkable fact that, in the case of scarlet fever, the percentage

of cases removed to hospital, which was only 12 per cent. of the known attacks in 1885, has steadily risen, until it reached 81 per cent. last year. Few things could afford a better testimony to the value and character of the work done towards the prevention of infectious diseases in the borough. To this may be added the information, that no less than 27,620 articles were submitted to a process of disinfection.

Birkenhead Urban District.—On a population which numbered 99,249 at the date of the census, the general death-rate for 1890 was 21·24 per 1000 in Birkenhead. Both as regards measles and the continued fevers there was excess of mortality as compared with the average, and the latter disease included typhus, of which sixty-four cases were notified. The total diseases notified were 2166 in number, and ninety-seven cases were removed to the very imperfect isolation hospital which has alone been available for so many years. Lately the subject of providing a hospital more adapted to the requirements of the borough has again been under consideration, and it has been referred to the Health Subcommittee for report. A large amount of disinfection, of current sanitary work, and a number of special inspections are referred to in Mr. Vacher's report; the subject of the housing of the labouring classes is receiving attention, and there is a proposal to deal with the midden refuse by destruction in a cremator.

Merthyr-Tydfil Urban District.—Mr. Thomas J. Dyke may almost claim the post of *doyen* in the public health service. He now submits his twenty-sixth report on the sanitary condition of Merthyr-Tydfil, a town where his labours have been followed by many improvements bearing on the health and comfort of the inhabitants. The population now exceeds 58,000, and during 1890 the death-rate was some 26 per 1000, as opposed to a mean of 23, influenza having contributed to the increase. Typhus appeared during the year; but by means of isolation, disinfection, and other precautions the disease did not extend beyond ten cases and one death. Enteric fever also caused some anxiety, and its distribution seemed to be associated with some pollution of water used in connexion with dairy processes. Reverting to his earlier labours, Mr. Dyke points out how, between 1845–55, the general death-rate for Merthyr was no less than 33 per 1000, and that when special groups of diseases are examined the diminution which has taken place is as striking as in the general rate. Deaths under one year of age, deaths from typhoid fever, and deaths from phthisis were at the rate of 80, 21·5, and 38 per 10,000 respectively; they now stand at 63, 3⅔, and 38 respectively. And whereas the average age at death was 17½ years, it has now been prolonged to 27½ years.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6862 births and 5612 deaths were registered during the week ending Jan. 9th. The annual rate of mortality in these towns was equal to 28·7 per 1000; in London the rate was 32·8, while it averaged 25·8 in the thirty-two provincial towns. The lowest rates in these towns last week were 15·7 in Croydon, 16·2 in Leicester, 16·6 in Bradford, 17·8 in Huddersfield, and 18·6 in Halifax; the highest rates were 35·0 in Wolverhampton, 36·0 in Portsmouth, 36·3 in Liverpool, 37·2 in Brighton, and 43·7 in Newcastle-upon-Tyne. The 5612 deaths included 549 which were referred to the principal zymotic diseases; of these 248 resulted from whooping-cough, 165 from measles, 44 from scarlet fever, 37 from diarrhœa, 32 from diphtheria, 23 from "fever" (principally enteric), and not one from small-pox. No fatal case of any of these diseases was registered in Brighton, in Plymouth, or in Huddersfield; while they caused the highest rates in Oldham, Sheffield, Cardiff, Newcastle-upon-Tyne, and Swansea. The greatest mortality from measles occurred in Liverpool, Cardiff, Gateshead, Newcastle-upon-Tyne, Norwich, and Swansea; scarlet fever in Halifax and Swansea; whooping-cough in London, West Ham, Sheffield, Swansea, Blackburn, and Oldham; and diarrhœa in Preston and Swansea. The mortality from "fever" showed no marked excess in any of the thirty-three towns. The 32 deaths from diphtheria included 25 in London, 2 in Sheffield, and 2 in Newcastle-upon-Tyne. No fatal case of small-pox was registered in any of the thirty-three large towns; four small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and 1 in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1435, against numbers declining from 1554 to 1471 at the end of the preceding five weeks; 104 new cases were admitted during the week, against 90 and 101 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 337, 553, and 1317 in the preceding three weeks, declined last week to 1084, but exceeded by 455 the corrected average. The causes of 122, or 2·2 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Croydon, Bolton, Blackburn, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Leicester, Birkenhead, Preston, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 27·1 and 26·0 per 1000 in the preceding two weeks, further declined to 24·9 during the week ending Jan. 9th, and was 3·8 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·7 in Greenock and 22·2 in Perth to 30·5 in Dundee and 32·2 in Aberdeen. The 694 deaths in these towns included 22 which were referred to whooping-cough, 9 from measles, 9 from diarrhœa, 8 from diphtheria, 6 from "fever," 4 from scarlet fever, and not one from small-pox. In all, 58 deaths resulted from these principal zymotic diseases, against 41 and 69 in the preceding two weeks. These 58 deaths were equal to an annual rate of 2·1 per 1000, which was 0·7 below the mean rate last week from the same diseases in the thirty-three English towns. The fatal cases of whooping-cough, which had increased in the preceding three weeks from 12 to 22, were again 22 last week, of which 10 occurred in Glasgow, 5 in Aberdeen, 3 in Paisley, and 3 in Greenock. The 9 deaths from measles showed a further increase upon recent weekly numbers, and were all recorded in Glasgow. The fatal cases of diphtheria, which had been 4 and 11 in the preceding two weeks, declined to 8 last week, of which 5 occurred in Glasgow and 2 in Perth. The 6 deaths referred to different forms of "fever" showed a decline of 4 from the number in the previous week, and included 2 in Glasgow and 2 in Aberdeen. The 4 fatal cases of scarlet fever showed a marked decline from recent weekly numbers, and included 3 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 254 and 203 in the preceding two weeks, were 200 last week, and were 40 below the number in the corresponding week of last year. The causes of 79, or more than 11 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 29·1 and 45·8 per 1000 in the preceding two weeks, declined again to 35·0 during the week ending Jan. 9th. During the thirteen weeks of last quarter the death-rate in the city averaged 29·8 per 1000, against 20·5 in London and 25·5 in Edinburgh. The 235 deaths in Dublin during the week under notice showed a decline of 70 from the number in the previous week, and included 10 which were referred to whooping-cough, 5 to different forms of "fever," 1 to diphtheria, 1 to diarrhœa, and not one either to small-pox, measles, or scarlet fever. In all, 17 deaths resulted from these principal zymotic diseases, equal to an annual rate of 2·5 per 1000, the rate during the same period being 3·6 in London and 1·4 in Edinburgh. The fatal cases of whooping-cough, which had steadily increased in the preceding five weeks from 2 to 8, further rose to 10 last week. The deaths referred to "fever," which had increased from 7 to 10 in the previous three weeks, declined again to 5 last week. The fatal case of diphtheria was the first recorded in the city since November last. The 235 deaths registered in Dublin last week included 35 of infants under one year of age, and 72 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the numbers in the preceding week. Seven inquest cases and 7 deaths from

violence were registered; and 37, or nearly 16 per cent., of the deaths occurred in public institutions. The causes of 24, or more than 10 per cent., of the deaths in the city were not certified.

INFLUENZA MORTALITY IN 1890.

The Registrar-General's fifty-third annual report recently issued deals with the mortality statistics of England and Wales for 1890. The report specially refers to the recorded mortality from influenza. It appears that the total number of deaths directly referred to influenza in 1890 was 4523. It is pointed out, however, that this number gives no trustworthy indication of the true mortality from influenza, since an unknown but certainly large proportion of the deaths due to this epidemic are invariably returned under bronchitis, pneumonia, and other similar headings. The first epidemic of influenza since 1837, when civil registration of deaths was established in this country, occurred in 1841, whereas the most fatal visitation was that in 1847, which lasted into 1848 and 1849; the disease also showed fatal prevalence in 1851, 1853, and 1858, whereas it did not figure conspicuously in the death register after 1858 until 1890, although the outbreak really commenced in the latter part of 1889. As regards 1890, however, the epidemic, which in London began to subside before the end of January, had, generally speaking, disappeared from all parts of the country by the end of March. With regard to the enormous increase in the mortality returned under other headings, especially under pneumonia and bronchitis, it is pointed out that it could not be attributed to the usual cause of increase under these headings—namely, low temperature—since the mean temperature of January, when the epidemic was most fatal in London, was 6·8° F., and that of the whole first quarter of the year 2·5° F., above the average. On the presumption "that the increased mortality from pneumonia, bronchitis, and diseases of the organs of circulation, compared with the average of the nine preceding years of the decennium, was due to the same cause as were the deaths directly ascribed to influenza," the number of deaths due indirectly to influenza is calculated to have been 22,551, which, added to the 4523 directly referred to the epidemic, raises the total mortality directly and indirectly due to influenza from 4523 to 27,074, equal to 941 per million persons living. The tables in the report under notice show that of the 4523 deaths ascribed to influenza 2415 were of males and 2108 of females; the disease was most fatal among males aged from fifty-five to sixty-five, whereas the most fatal incidence among females was during the age period sixty-five to seventy-five.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Colonel W. Collis has been selected for the appointment of Principal Medical Officer to the troops in Ireland; Surgeon-Major-General Sir James Hanbury, M.B., F.R.C.S.I., having attained the age of sixty, has been placed on retired pay; Surgeon-Major-General Duncan A. C. Faser, M.D., is placed on retired pay (dated Dec. 27th, 1891); Surgeon-Lieutenant-Colonel Richard M. Craig retires on retired pay (dated Jan. 13th, 1892); Surgeon-Major John E. V. Foss, M.D., is placed upon temporary half-pay on account of ill-health (dated Jan. 12th, 1892); Surgeon-Captain M. T. Yarr, has been selected for temporary attachment to the Coldstream Guards, vice Surgeon-Captain Philip H. Whiston, who has accepted employment with the Egyptian Army.

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Surgeon Michael OBrien, M.D., to the *Northampton* (dated Jan. 9th, 1892); Surgeons and Agents: Mr. Henry Guy-Edwards to Bangor, North Wales, and Mr. James Trant to Knightstown and Port Magee (both dated Jan. 9th, 1892).

VOLUNTEER CORPS.—*Rifle:* 2nd Volunteer Battalion, the Duke of Cambridge's Own (Middlesex Regiment): Henry George Gastrill Wilkins, Gent., to be Surgeon-Lieutenant (dated Jan. 9th, 1892).—2nd Cadet Battalion, the Queen's (Royal West Surrey Regiment): Acting Surgeon C. S. Smith resigns his appointment (dated Jan. 9th, 1892).—1st Cadet Battalion, the Royal Warwickshire Regiment: Acting Surgeon F. W. Underhill resigns his appointment (dated Jan. 9th, 1892).

Correspondence.

"Audi alteram partem."

THE TREATMENT OF CHLOROFORM ACCIDENTS.

To the Editors of THE LANCET.

SIRS,—In your annotation upon the case of chloroform poisoning at the Middlesex Hospital I find that amongst the very numerous methods resorted to by the administrators in their efforts to restore animation there is no mention made of galvanism. This omission induces me to place on record a case in which I believe life was saved by the application of the faradaic current. I was about to excise the upper jaw in a man aged thirty-seven for an extensive sarcomatous growth. Complete anæsthesia having been produced without unusual incident by means of ether, I opened the trachea, introduced a cannula, and plugged the fauces, as a preliminary step to the operation itself. My assistant, Mr. Harrison, who has had considerable experience as an administrator of anæsthetics, proceeded to maintain the narcotism by means of chloroform dropped from time to time upon a small piece of lint held in forceps near the tracheal opening. Very shortly, and before the operation had been commenced, the patient suddenly ceased to breathe, and at the same time became ghastly pale. Meanwhile his pupils did not dilate, and his heart was found to continue its pulsations, though in a feeble and slower manner. Dashing the face with a cold wet towel and Silvester's artificial respiration were at once resorted to, and perseveringly continued for some minutes—Mr. Teale of Leeds and Mr. Greenwood of Ossett, as well as my assistant, giving me all the help they could. Air went in and out of the tracheal opening with great freedom, but on ceasing our efforts the patient gave no sign of breathing, his chest remaining quite motionless. It was here observed that the heart's pulsations were feebler and fewer. When matters were thus becoming very serious the faradaic battery, which for many years past has always been kept in readiness in my operating room, was brought into use, one electrode being pressed upon the left side of the neck and the other beneath the lower margin of the ribs. In immediate response to the current the patient made a deep inspiration, and from that moment respiration went on without further interruption to the completion of the operation. A prettier experiment I never witnessed. I am, Sirs, yours faithfully,

Leeds, Jan. 11th 1892. T. R. JESSOP.

"THE BEARING OF RECENT BIOLOGICAL RESEARCH ON THE PRACTICE OF MEDICINE AND SURGERY."

To the Editors of THE LANCET.

SIRS,—In Dr. G. Sims Woodhead's article in your issue of the 2nd inst. on the above subject, he states that "they (Drs. Wood and Maxwell Ross) decided to use iodine as a local irritant," applying it "in the form of a ring slightly beyond that portion which is already affected" in cases of erysipelas, with a view to bringing more leucocytes and an increased amount of oxygenated blood to the affected tissues, and so enable them to withstand the attacks of the micrococci and to overcome them. And, further, he states that Dr. Alex. Miles has treated in this way a large number of cases of erysipelas with marvellously successful results.

This is certainly a very gratifying result from the practical application of knowledge derived by a process of induction from the study of biology and bacteriology, and I do not wish for a moment to insinuate that such results are not to be expected even in increased number in the future; but it is a very interesting fact that in the year of grace 1892 Dr. G. Sims Woodhead is presenting to us, as new and scientifically bred, a method of treatment which one John Higginbottom of Nottingham, and afterwards of London, published and practised in the year 1829, the only difference being that he employed as his local irritant nitrate of silver, and here is his prescription:—R. Argenti nitratis, ℈iv.; aquæ, f. ℥ ss. M. I am indebted to Dr. E. H. Bennett, Professor of Surgery in the University of Dublin, for the date (1829) of the *second* edition of Mr. Higginbottom's "Observations on the Use of Nitrate of Silver.

In the third edition of "A System of Practical Surgery," by William Fergusson, F.R.S., published in 1852, speaking of erysipelas, he says on page 117: "I have myself little faith in those (local measures) which are said by some to check the progress of the disease in a sudden, specific, and mysterious manner, such as the free use of nitrate of silver—a practice first inculcated by Mr. Higginbottom of Nottingham—applied either on the inflamed surface, by way of dispelling the affection at once, or in the vicinity, to check its progress and prevent its extending further on the surface than the line marked out by the caustic." Again, in Billroth's "Surgery," New Sydenham Society's Series, published in 1878, we read on page 15, vol. ii.: "As regards local treatment, a variety of measures has been adopted in order to stay the spread of the erysipelatous inflammation, and to bring it to a standstill. For this purpose the margin has been painted with a solution of nitrate of silver, or with a strong solution of iodine." Here we have Dr. Woodhead's own remedy mentioned, and that, too, in a way that would lead us to think it was an old—nay, a decrepit—remedy; for later on Billroth says: "According to my own experience, this is of no avail, so that latterly I have quite left off the practice." Mr. Erichsen, in his seventh edition of the "Science and Art of Surgery," vol. i., page 698, says: "A boundary line of nitrate of silver is occasionally drawn round the inflamed part with a view of checking the extension of the disease. I have often done this and seen it done by others, but never apparently with any benefit; and have now discontinued it as a useless source of irritation." So Mr. Erichsen speaks, too, in 1877, as though this treatment was as ancient, shall I say, as it was useless. Painting a ring with either nitrate of silver, tincture of iodine, or liquor ferri perchloridi fortior (B. P.) beyond the margin of the area of inflammation in cases of erysipelas was frequently mentioned as one of the suggested methods of treatment, both in lectures and at the bedside, in Dublin; and I remember the late Dr. Thomas Evelyn Little, whose opinion on matters surgical was greatly valued then, spoke highly of the use of nitrate of silver in this way, but the general impression was that the treatment was useless. It was my recollection of this procedure being spoken of as very antiquated indeed that caused me to look the matter up, when I saw it, to my surprise, set forth as a boon from the bacteriologists.

It is a curious example of the truth of the saying, "There is nothing new under the sun," and if it is such a wonderful remedy as Dr. Alex. Miles' results will doubtless (when they are published) lead us to suppose, it should make us have more respect for an empiricism that can find and lay aside as useless a mode of treatment which science disinters only after a lapse of sixty-three years, and then fondly imagines it has originated. In conclusion, I trust Dr. Alex. Miles' experience with his iodine will be more hopeful than was that of Fergusson, Billroth, and Erichsen with it or nitrate of silver. Mayhap the leucocytes have so benefited by the strides of science during the past sixty-three years that, knowing now what is expected of them, Dr. Alex. Miles' iodine will act upon them as a red rag is said to act upon a bull. I am, Sirs, yours faithfully,

LEONARD G. S. MOLLOY, B.A., M.D. Univ. Dub.

Blackpool, Jan. 6th, 1892.

THE COUNTY INFIRMARIES OF IRELAND.

To the Editors of THE LANCET.

SIRS,—I notice that a short time ago a deputation from the surgeons of county infirmaries in Ireland waited upon the Chief Secretary for the purpose of reminding him of the necessity of providing in the coming Irish Local Government Bill some sort of protection for these institutions against the anticipated determination of the popular party (who will form the chief power in the projected County Councils) to disestablish and disendow the infirmaries. With the administration of these hospitals I have nothing for the present to do; but it seems to me an opportune time to point out that provision should be made in the coming Bill for the amalgamation of county infirmaries and the workhouse hospitals, for once we get an Irish Local Government Bill the fate of the hated workhouse is sure to be sealed.

The provision I would point out as being amongst those which any future Bill should contain would be such as I pointed out to the Lurgan Board of Guardians in January, 1888, when I brought forward a resolution calling upon the Government "to cause a searching inquiry to be held into the working of the Poor-law system with a view to its entire abolition, or such changes in it as would be more in accordance with the wishes of the people." In the course of my address in support of this resolution, I gave a brief outline of an alternative system, an idea of which may be gathered from the subsequent portion of this letter. Though the guardians neglected this resolution without adducing a single reason or argument against it, yet when I subsequently got the remarks I ventured to make in support of my resolution printed in pamphlet form, and sent a copy to most of the principal papers in the United Kingdom representing every shade of politics, every one of the papers I had an opportunity of seeing devoted leading articles to the subject, and criticised my remarks most favourably, and all were agreed that the Poor-law system at present in vogue demanded reformation. In the course of my address I pointed out that the poor in our workhouses might be divided into three classes: the lunatics I did not include, as they should be sent to the asylums proper. In the first class I placed the sick infirm—by infirm I meant those incapacitated by old age—and children under three years. For these I proposed that "Cottage Hospitals" or "Homes for the Sick and Infirm" should be established. In the second class I included children over three years and under thirteen years of age. These I suggested should be kept out at nurse, as at present. The third class embraced the casuals and able-bodied paupers. The relief of casuals I considered should be placed under police control, as they could better discriminate the dishonest, scheming, or idle but able-bodied paupers, and be in a position to detect criminals. My rule for them, I pointed out, would be "work or bread-and-water." The police could have tickets for lodgings and tickets for food, for which, on being presented to the lodging-house keepers, equivalents by the way of lodging and food would be given. These tickets could be purchased by charitably disposed persons and given away, but in each case the recipient would be required to present himself at the barracks to have the ticket stamped by the constabulary. For the others of this class I suggested we should do as the Americans do—viz., appoint work masters or superintendents of labour. Their duties would be more comprehensive than those of our relieving officers; they could keep registry offices for the unemployed and employers of labour. They should have power to afford provisional relief to those in distress or difficulty, or afford loans recoverable by an easy process at law. All this to be under the control of a small elected committee. Such is a brief outline of the system I suggested.

Now if such a system as the foregoing were adopted, those embraced in my first class—viz., the sick and infirm, as well as those treated in county infirmaries—could be housed in the "cottage hospitals" or "homes for the sick and infirm." Having pay wards attached to them, this would do away with the objections which those who are able and willing to pay have to enter the hospitals connected with the present workhouse. In any case I can see no reason for the coexistence of county infirmaries and workhouse hospitals. The voice of the people must be attended to, and the Poor-law system is bound to be reformed. With that reformation will, I hope, come the solution of the present difficulty in connexion with the county infirmaries of Ireland.—I am, Sirs, yours faithfully,

E. MAGENNIS, M.D., D.P.H., J.P.

Lurgan, Jan. 11th, 1892.

THE DUKES AND CARPENTER FUND.

To the Editors of THE LANCET.

SIRS,—I am pleased to see the action of the Croydon Medical Reading Society in coming forward so promptly and generously to the rescue of their unfortunate brethren, Drs. Dukes and Carpenter, who have innocently fallen into the pit prepared for them by the anomalies of the Lunacy Act. In some of its clauses for the extreme protection of the poor lunatic the red-tapeism of the Act borders on the ridiculous. Take, for instance, the written statement to be handed to the patient, signifying his right to be taken before a judicial authority. What an opportunity for a high flown, imperious patient to excite himself and worry his attendants! While every effort is made to afford the lunatic protection, and to satisfy the suspicious public who are so jealous of the liberty of the individual, the safety, the dignity, and the convenience of the general practitioner are ignored or deemed

of small account. The lunatic is the point to which all kinds of public sympathy—mistaken, misdirected, and sentimental—converge. He is the precious individual to be fenced in by the tangles and barbs of a fearful and wonderful piece of legislation. The numerous protecting arms of sections, clauses, and enactments are his shelter from the designing knaves interested in his confinement in an asylum or elsewhere. But the only defence of the medical man bold enough to put his name to a lunacy certificate is a gingerbread fabric, which any aggrieved lunatic, especially when backed by mischief or misdirected zeal, can easily knock down.

It is perfectly right to remind Drs. Dukes and Carpenter that there is such an institution as the Medical Defence Union, and to point out the folly of not having joined it. Let us, however, give them the help first and the lecture afterwards. I may add that Drs. Dukes and Carpenter are personally unknown to me, and that my interest in their behalf arises simply from a strong sense of the injustice and wrong to which they have been subjected, and of our obligation as members of a noble profession to help one another in trouble.

I am, Sirs, yours obediently,

West Norwood, Jan. 9th, 1892. J. A. AUSTIN, M.D.

LONDON CONSULTANTS AND GENERAL PRACTITIONERS.

To the Editors of THE LANCET.

SIRS,—In the somewhat fitful and discursive correspondence on the above subject, which has now been carried on for some years past in your columns without an apparently satisfactory conclusion having been reached, some points have been left out of sight which appear to me of importance, and should go far to settle this question amicably; and I therefore beg your insertion of the following lines. The general practitioners always assume that they confer unmixed blessings on the consultants, but receive none in return from them, and are, in fact, treated with the blackest ingratitude. They entirely forget that if the consultant benefits by the practitioner, the latter benefits quite as much by the former. Thousands of patients are annually sent down to the country and seaside by London consultants, with introductory letters to local practitioners, who attend to those patients sometimes for months together. Not only this, but the consultant often recommends friends of his, who may be off and on his patients, to a particular practitioner, when they go to live in one of the suburbs or out of town. I have frequently found, after having done so, my friends so satisfied with the choice I had made for them that I have never seen them again professionally. Let us, therefore, cease squabbling, and adhere cheerfully to the right principle of "give and take," which, when carried out consistently and without any afterthought, is sure to lead in the end to the satisfaction of both sides.

I am, Sirs, yours faithfully,

Harley-street, W., Jan. 4th, 1892. A LONDON CONSULTANT.

EPIDEMIC INFLUENZA.

To the Editors of THE LANCET.

SIRS,—It is now over a decade since I wrote you a letter under the title of "Medicus." The circumstance was the obstruction I had in the completion of my observations on the epidemic fever of a peculiar type which, to my mind, then appeared much like the hunger pest. This was simply on account of the relapsing feature of the disease. The observations which I then began have been steadily kept up, and I am in a position to prove the continuity of repeated epidemics of the same fever at intervals of two and three years, until in 1888 it decidedly almost died out.

When the great pandemic of the epidemic influenza spread all over the world I made it a study to keep up to the literature of the disease, and it is some consolation to know that what others failed to show me has now been taught the world by the great scourge of 1889-90. I traced the disease to Afghanistan in 1882-83, and I feel sure that the epidemic fever of Calcutta found its way to Russia through the Caucasian track and revealed itself to the Western world, and was only then recognised as the epidemic influenza. I have the history and origin of the epidemic in Calcutta, and it will be an uncomfortable surprise to the world to know that the insanitary Gangetic delta in which Calcutta exists can develop such formidable epidemics.

A word with reference to the illness of Prince George of Wales. You will not consider me too bold if I say that I possess notes and clinical observations of similar cases in our epidemics to which I have alluded. The spots go for nothing. The great nervous prostration and the subnormal temperature, as well as the sweat, are characteristic of the remittent type of epidemic influenza cases. There are cases much like the typhus, too, and a variety of others. It is a protean disease, and in this the epidemic influenza is closely allied to that formidable disease syphilis.

I am, Sirs, yours faithfully,

Calcutta, Dec. 23rd, 1891. MEDICUS.

ANTISEPTICS IN OPHTHALMIC SURGERY

To the Editors of THE LANCET.

SIRS,—I regret that I still fail to see the object of Dr. Bullar's experiment on the rabbit's eye; he surely must have expected the result to have been what it was—viz., that in a few days it stank abominably. He must have known the eye would not be prevented decomposing by a 1 in 4000 perchloride solution. Beef-steaks &c. have been kept sweet and free from decomposition for many weeks by the antiseptic method, but by stronger measures than a 1 in 4000 solution of perchloride. I do not wish to push the matter too far, but I contend a living human eye *can* be operated on and dressed afterwards perfectly well in a way more likely to destroy germs, and also to exclude them, than the method adopted by Dr. Bullar with his rabbit's eye. Many surgeons dress the eye after cataract extraction with a thick and elastic layer of sublimate wool, which is frequently impregnated with a 1 in 500 corrosive sublimate. I fancy a germ would find it no easy matter to dodge through the interstices of a couple of inches or so of ordinary cotton wool, and the addition of the sublimate would not lighten his exertions.

We must, I think, put Dr. Bullar's experiment aside; for all practical purposes it is useless. The only method left to us is by comparing results, as Dr. Bullar has himself suggested. To that method there are also objections, but there can be nothing perfectly free from objections. Personally, I very much wish the matter could be decisively and once for all settled, and that the conclusion would be adverse to all antiseptic methods; what a lot of time and trouble it would save us! I have seen, and frequently seen, what Dr. Bullar would, I believe, admit to be a very fair sample of ophthalmic surgeons operate—viz., the staff of Moorfields hospital, where I was a clinical assistant off and on for about three years, Professor Fuchs of Vienna, the ophthalmic staff of St. Thomas's Hospital and of the Edinburgh Infirmary, and Dr. Bell Taylor, and all to a man use antiseptic methods, or did so when I last saw them. I admit that does not prove there is anything in the method, but it is suggestive at least. Most of these operators are old enough to have experienced the pre-antiseptic age; but somehow, after a pretty fair trial, they do not seem to give up antiseptic precautions. It may not be a point quite on the same level, but if Dr. Bullar had to operate straight off on a cataract with a mucocele on the same side, which method, the antiseptic or the other, does he think would give that eye the best chance? In conclusion, let me assure your correspondent it is not my intention to engage in wordy warfare with him or anyone else on the antiseptic or any other system; it is so easy to criticise, so difficult to construct. This correspondence is closed so far as I am concerned. I only hope some practical outcome of Dr. Bullar's suggestion may be reached ere long, and few things would gratify me more than to feel assured that the antiseptic method—not our civilisation—is a failure, it would save no end of bother. At present, I reluctantly admit, I cannot think so.

I am, Sirs, yours faithfully,

S. JOHNSON TAYLOR, M.B., M.R.C.S.

Norwich, Jan. 11th, 1892.

PERCENTAGE OF FIBRIN IN THE BLOOD OF LEPERS.

To the Editors of THE LANCET.

SIRS,—Dr. Beaven Rake states in the current number of THE LANCET that he has found the amount of fibrin in leprous blood much increased; in some cases the percentage found being as much as seven or eight times the normal. Without wishing to dispute the general conclusion at which he has arrived may I be permitted to point out the rough

method of analysis that he has adopted. If Dr. Rake has further opportunities of prosecuting his research I would suggest that he might adopt a method by which his results can be more accurately compared with those obtained from normal blood which he quotes. The particular points to which his attention should be directed are: (1) Soaking fibrin in water for some hours is not sufficient to free it from corpuscles (it is better to place it under a running stream of water, kneading it frequently in order that all parts of the coagulum are exposed to its action); (2) fibrin dried on blotting-paper cannot be accurately spoken of as dried fibrin—dried fibrin is fibrin which has been exposed in a hot-air oven at 110° C. for some hours until it loses no further weight from evaporation of water; (3) after this the mineral admixture has still to be deducted, this being ascertained by weighing the ash left after ignition.

I remain, Sirs, yours truly,

King's College, Jan. 9th, 1892. W. D. HALLIBURTON.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

To the Editors of THE LANCET.

SIRS,—I thank you for your notice of the claims of the Royal Medical Benevolent College at Epsom for professional and public support. Since speaking at the festival in 1890, I have been advised that if I can now collect £26,000, and can show a strong subscription list for the foundationers, in addition to a good, sound, successful school, I shall have but little difficulty in obtaining an amended Act of Parliament to secure the benefits we desire for our pensioners. In doing this great charity to the aged, we shall be doing an incalculable good to the school, to foundationers, as well as to the sons of medical men or other boys attracted to the College by the excellent education we offer.—I am, Sirs, yours faithfully,

C. HOLMAN,

Reigate, Jan. 11th, 1892. Treasurer to Epsom College.

SHAKESPEARE'S DEATH.

To the Editors of THE LANCET.

SIRS,—With reference to the correspondence lately contributed to your columns respecting the cause of Shakespeare's death, let me be allowed to state that on two occasions on which I had occasion to witness the testament of soldiers affected with delirium tremens, or, as they themselves say, "delirium tremendous," both of whom, however, recovered, I was particularly struck with the resemblance of their signatures to that appended to the similar document of the great dramatist. I can see nothing disgraceful or unlikely in the fact that a retired poet, actor, and playwright in the age of James I., and much later, having died from a debauch, aggravated by the medical treatment in vogue down almost to our own times, and indeed not unusual within my own memory. Ben Jonson we know, from the testimony of Drummond, of Hawthornden, and other witnesses, to have been a habitual abuser of alcoholic stimulants. "Drink," says the above writer, "was the element in which he lived." And from other evidence, and even from his own doggrel, we know that Shakespeare, both in London and after his retirement to Stratford-on-Avon, had the reputation of being a bcon companion. No doubt the disease *may* have been intensified not only by antiphlogistic medical treatment, but also by the malaria of an insanitary English village of the period. Marlowe's case is not dissimilar. I am, Sirs, yours truly,

R. LEWINS, M.D.,
Surgeon Lieutenant-Colonel.

Army and Navy Club, Pall Mall, Jan. 5th, 1892.

COMMUNICABILITY OF PHTHISIS FROM MAN TO LOWER ANIMALS.

To the Editors of THE LANCET.

SIRS,—A patient of mine, with a tubercular family history, died at the age of fourteen of acute tuberculosis. His two pets, a dog and a rabbit, which were often to be seen in his bedroom, and very frequently on his bed, died a short time afterwards of what appeared to be phthisis, a prominent symptom being a constant cough. A veterinary surgeon who examined the dog pronounced the cause of death to be consumption. From the facts stated I think it might fairly be inferred that the disease was communicated from the patient to the dog and rabbit.

I am, Sirs, yours truly,

J. ARMSTRONG, M.B.Edin.,
Late Senior Physician, Liverpool Infirmary for Children.

Liverpool, Jan. 12th, 1892.

REMOVAL OF THE GREAT TOE-NAIL.

To the Editors of THE LANCET.

SIRS,—I am frequently called upon to remove the great toe-nail by surgical operation. Till within the last year or two I have followed the usual method by dividing the nail down the middle with a pair of scissors, and tearing away each half separately with forceps. Of late I have adopted another plan, which I venture to recommend as much better. Observing, as all must have done, the readiness with which a splinter of wood inserts itself beneath the nail, I take a piece of ordinary deal lath about four inches in length, pare one end thin, and adapt it to the size and shape of the particular nail. The thin edge, previously oiled, is passed rapidly beneath the nail down to its root and the hand raised, thus completely detaching the nail from its bed in about two seconds of time. The advantages claimed for this simple operation are threefold—its extreme ease of execution, its rapidity, and the very slight injury inflicted on the soft parts. I am justified in recommending its adoption by the approbation of others who have tried it.

I am, Sirs, your obedient servant,

Benson, Oxon., Jan. 8th, 1892. A. G. FIELD, F.R.C.S.

SMALL-POX AT DEWSBURY AND BATLEY.

To the Editors of THE LANCET.

SIRS,—In an editorial note of last week's issue you comment severely on the inaction of the sanitary authorities in Dewsbury and Batley. I wish to put you right as far as Dewsbury is concerned. A corporation hospital for the reception of infectious disease was erected four years ago. All cases of small-pox occurring in this sanitary district, whether paupers or otherwise, are treated there. Your note anent the action of the guardians is not a whit too strong. I am, Sirs, yours truly,

Dewsbury, Jan. 11th, 1892. W. F. WATTS, M.O.H.

THE PREVENTION OF INFLUENZA.

To the Editors of THE LANCET.

SIRS,—The value of small doses of quinine as a prophylactic during outbreaks of influenza has been so marked in my hands, both in 1890 and at the present day, that I deem it worthy of extensive trial, and trust that it will prove itself in other hands as reliable a means of prevention as it has done in mine. I prescribe a three-grain sulphate of quinine tabloid to be taken daily at breakfast, and to be continued until the epidemic disappears from the locality.

I am, Sirs, yours truly,

Cannes, Jan. 6th, 1892. H. BLANC, M.D., F.R.C.P.

THE EDINBURGH ASSOCIATION FOR THE PROMOTION OF REFORM IN MEDICAL EDUCATION.

(BY A CORRESPONDENT.)

THIS Association has quite recently been called into existence by the fact that the draft ordinances in medicine issued by the Scottish Universities Commissioners are unsatisfactory and the reforms proposed by them inadequate. The Association consists mainly, but not entirely, of the younger men who are lecturing or teaching in the school, and also of graduates interested in the advancement of medical education; it also includes a few University assistants. Already the Edinburgh Colleges and the Association of Extra-mural Lecturers have presented statements to the commissioners which have in the main dealt rather with the relations of the intra-mural and extra-mural schools than with what might be regarded more purely as reform or advance in the methods of teaching and the curriculum of study. The members of the new Association are men who

are acquainted with the newer methods which have already been introduced into some of the English schools, and who recognise the importance of a thorough training in practical detail, and the absolute necessity of this side of medical education in the University being entirely remodelled if the reputation of Edinburgh is to be maintained. These were the circumstances and the motives which resulted in the formation of this Association.

The outcome, so far, of its deliberations is that a statement was prepared and sent to the commissioners at the end of the year. The statement is so important, and deals so directly with some of the faults of the present condition of things, that a somewhat detailed abstract of it will be interesting to many readers of THE LANCET, graduates of Edinburgh. It begins by stating that the number of students in 1870–71 was 678, and rose to 1603 in 1880–81. This increase is accounted for by the influence of distinguished teachers in the school, by the fact that in England the only entrance to the profession for the average student was by a college diploma, and by the Edinburgh school being distinguished for the excellence of the practical instruction given in it, and that in this last respect it was not surpassed by anything then obtainable in England. During the eighties the number of students continued to rise, and reached in 1889–90 to 2003. During the eighties no corresponding increase to the teaching power or adequate improvement in the medical curriculum of the University was made, notwithstanding the fact that, owing to public support, the medical school of the University had been accommodated in a building which it was anticipated would fulfil all modern requirements. As a result of the increase in the number of students, they were taught in systematic classes, sometimes of nearly five hundred, a condition under which it was of course impossible for the vast majority of students to see and personally examine the details of experiments or practical demonstrations, so that little practical value could be derived from the lecture over and above what could have been obtained from the well-written and easily accessible text-books issued in all the departments of medical science. At the same time the numbers attending the practical classes increased so greatly that satisfactory personal supervision by the authorised teachers became impossible. It is then pointed out that during this period changes took place in the English schools which it is not desirable to under-estimate—changes both in the extent of the English curricula of studies and in the methods and means of teaching. Some of these changes are referred to and need not be given in detail here, the point being that the tendency has been to minimise the number of systematic lectures and to extend in a marked degree the practical training. A table is given comparing the compulsory number of lectures and the number of hours of practical work a student has to attend to qualify for the Edinburgh and London Universities and the Victoria University. They are roughly as follows: Edinburgh requires ninety lectures more than London, and twenty less than Victoria; Edinburgh requires 200 hours of practical work, London 510, and Victoria 600. From this it is pointed out that the Edinburgh school, once distinguished by the prominence given to practical studies, is now being outstripped by its English competitors in this very particular. As regards the entry of freshmen, they have gone down from 590 in 1888–89 to 446 in 1890–91, while London has gone up from 980 in 1888–89 to 1097 in 1890–91. The statement goes on to say that in view of these facts it was hoped that some thorough and far-reaching plan of reform would be introduced into the University, but that no measure of reform is introduced which in the opinion of the Association is at all sufficient to save the future of the Edinburgh school.

The statement then suggests the line of reform which ought to be followed. It is not proposed to suddenly raise the standard of the ordinary degree, but to materially improve it in various ways and to introduce an honours school. By this means it is thought that the men who are content with the pass examinations will be retained in the school, while it would also attract and keep the more ambitious and capable men. By an honours' school is meant one in which an extended training is given and an extended knowledge is required in some or all of the subjects of the curriculum. Then follow specific suggestions regarding the pass degree. The present system of dictating lectures is animadverted on, and it is suggested that a syllabus of the requirements for the pass degree should be issued so that the task allotted to the average student would be reasonably within his powers. It is also recommended that the number of systematic lectures in all the departments might be materially reduced. Materia medica has been placed in the draft ordinance in far too prominent a position, and the Association consider it a mistake to make practical pharmacognosy and pharmacy the sole subjects in the second professional examination (or any other special examination) of students who in their after-life will, as a rule, be largely relieved by the retail druggist from the consideration of such subjects. They also suggest that the number of lectures on this subject should be reduced from 100 to 50. It is further deemed essential that the first three years be devoted to the study of the medical sciences, including pathology and materia medica, and that the last two years be retained for the subjects of the final examination, the last year being kept as clear as possible for clinical work. The extension of practical teaching is then dealt with, and its importance impressed upon the Commission; and it is suggested that the difficulties in carrying out improvements in this direction might be facilitated by recognising the extra-mural teachers. Meanwhile they make the following suggestions: In natural history they advocate the institution of an improved "educational museum"; in it, botany and chemistry, the number of lectures should be reduced and the practical teaching extended, and they might be specially adapted to the requirements of students of medicine. In anatomy, that the number of lectures be reduced to eighty, and such subjects as the detailed anatomy of bones and muscle insertions be relegated to a junior teacher, who would demonstrate them to small classes. In physiology, that embryology be discontinued as belonging to anatomy, and that histology be left to the class of practical histology, and that a more extended course of chemical physiology be instituted, with ten additional hours for simple experimental work. In pathology, that, as in the other subjects, the lectures be reduced in number and increased facilities be given for naked-eye pathology, and attendance for three months at the post-mortem theatre should be insisted on. In medicine and surgery, in addition to curtailing the number of lectures, short courses should be given on the eye, ear, and throat, diseases of children, &c. In midwifery, that fifty lectures be devoted to obstetrics and thirty to gynæcology, and in addition ten or twelve practical demonstrations. That a course of fifty lectures and demonstrations be given on medical jurisprudence and toxicology, and a separate course upon public health. And lastly, that all practical classes should be limited by the University Court to such number of students as, in their opinion, an experienced teacher can efficiently teach.

Then follow suggestions respecting the proposed honours school. While admitting that there might be differences of opinion as to the details of such a school, the reformers hold that the candidates should pass through a more extended practical training. In the first professional examination the candidate might present himself for honours in natural history and botany, or physics and chemistry; in the second examination, in anatomy or physiology; in the third, in pathology, including practical bacteriology, or materia medica, including pharmacology; while in the final, he would have to present himself for honours in medicine, including diseases of children, tropical diseases, insanity, medical ophthalmoscopy, and medical laryngology; or surgery, including operative surgery, the eye, ear, and throat; or in midwifery, including gynæcology and abdominal surgery. In order to graduate in the honours school the candidate would require to select for honours one department in the final examination, and any three departments in the previous part of his course, but he must attend the whole of the classes of the honours school and undergo pass examinations in those subjects which he does not select for honours. The statement dwells upon the importance and necessity of introducing new subjects, and also of having more advanced classes in the subjects already taught and required for examination. The Association further urges the necessity of a largely increased staff of examiners. In their opinion the present number of examiners is totally inadequate, and as a result the examinations are not carried out with due care and deliberation. In conclusion, the Association assure the commissioners of their conviction that improvements on the lines suggested by them would meet with general acceptance. The plan of reform indicated would remove defects which have long been acknowledged and would enable the University to maintain its position among the foremost medical schools.

THE PSYCHOLOGICAL MUSEUM AT FLORENCE.

(FROM OUR OWN CORRESPONDENT.)

TO-DAY in the Reale Istituto di Studi Superiori was inaugurated the Museo Psichologico collected by the distinguished biologist and man of letters, Professor Paolo Mantegazza. There was a large attendance of the scientific, literary, and artistic worlds—medicine being numerously represented—while a prominent figure was that of the Commendatore Luigi Borg de Balzan, to whose liberality are due not only the donation which enabled Professor Mantegazza to add to his collection, but also the permanent fund which will help still further to enrich it, and to maintain the museum itself, with all its *personnel*, for the use of the public, professional and non-professional.

The museum is replete with objects of every conceivable kind, which serve to illustrate the play of the sentiments and passions of every people, in every age. The most savage races are not left out, and the implements connected with their religious worship, as well as the armoury of torture, of personal vanity, of voluptuous pursuits of all kinds, form the starting-point of an ascending scale of psychological manifestation culminating in the latest fads of the *fin de siècle* school.

Professor Mantegazza did the honours of the inauguration, and in the course of his address explained the idea that underlay the project now put into shape. "The Museo Psichologico," he said, "is a collection of every article and document that can throw any light on the genesis and evolution of human passion, exclusive of the ethnological element. While in the museum of ethnography we have the manifestation of thought, of art, of industry among all the peoples of the world, we aim at representing in this museum the facts which illustrate the individual varieties of psychical development in health and in disease. The question to be solved was one of method in the arrangement of *matériel* rather than of the *matériel* itself. For in science the question of method is not less important than the question of subject matter. I would like to see a 'Museo d' Etnografia' arranged in the psychical order and not in the ethnological order, and certainly the same things disposed on a different system would speak differently to our minds. Instead of seeing in the compartment devoted to Australia, for example, how the Australians clothe and feed, how they hunt and slay, we should find in one hall everything that bears upon the vesture of all peoples, in another everything that illustrates the chase, war, and so forth. This psychical arrangement was already tried and to a partial extent carried out in some museums; but the majority of ethnologists prefer the geographical or ethnological system, because more convenient, more easy, and more comprehensive. I, too, in my 'Museo d' Etnologia' debated long with myself as to the method I should adopt in the arrangement of my collection, and I chose the geographical.

"There are, however, many objects which refuse to be classified under the geographical or the ethnical relation, and which I wished to gather together as a first nucleus—as first specimens—of a psychological museum. I present some of these to you now: a hair shirt (of penance); a pack of cards fabricated by galley slaves for secret gaming; a Corsican stiletto (for *vendetta*); the necklace of a woman of the Andaman Islands, made with the bones of her infant boy; the jaw-bone of another boy, worn as a bracelet by a woman of New Guinea. Every department of my psychological museum will in time illustrate in this way the passions or sentiments of mankind. In the department of love you will find amatory offerings, instruments for safeguarding the purity of the female sex, love philtres, and such like. In that of pride will be exhibited the insignia of power, of social class distinctions, and court decoration. In that of religious sentiment we shall have on view the amulets, the idols, and the vast diversity of the *matériel* of different cults."

Professor Mantegazza concluded by declaring the museum open to the public, and may be congratulated on having added another to the many attractions of Florence.

Florence, Dec. 28th, 1891.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Influenza in Northern Counties.

I BELIEVE that since the cholera epidemic there has never been such illness or mortality in the north of England as at the present. In Richmond and the surrounding villages it is computed that there are over 1000 cases, and many deaths have taken place. At Middlesbrough, the medical officer of health, Dr. Malcomson, reporting on the sudden rise of the death-rate, said the cause had been twofold—viz., the exceedingly inclement weather experienced about the middle and latter part of the month, fogs and severe frosts prevailing, and the return in a very virulent form of the influenza, so that the mortality was greatly out of the ordinary proportions amongst infants and old persons. It might, Dr. Malcomson said, "be taken as a general truth that cold killed the infants, and the influenza and its complications were fatal to the aged," and he thought that there was no doubt that many of the deaths under other heads had their starting-point in this malady. It was pointed out by a speaker at the Sanitary Committee that there was also at present a large amount of destitution in the town, and that insufficient food and clothing had a great deal to do with the increase.

Notification of Whooping-cough and Measles at Newcastle.

An important discussion took place last week at a special meeting of the Newcastle Sanitary Committee as to the notification of whooping-cough and measles. Dr. Armstrong, the city health officer, reported that since the notification of scarlet fever there had been a decided decrease in the number of cases. Measles had now assumed a serious aspect, no fewer than ninety-five deaths having taken place during the last quarter alone from this disease. It was maintained by some members of the committee that the improvement with respect to scarlet fever was due more to the action of the Sanitary Committee than to notification. Others were rather inclined to think that notification had done a good deal to bring the medical officer and his staff into close connexion with the people; and this, with the instructions issued regarding isolation and other matters of importance, had proved of immense benefit to the people themselves. This important discussion was adjourned for a fortnight. Meantime there is a feeling growing in the profession that measles and whooping-cough might well be included in the schedule of infectious diseases, seeing how rapidly these affections are disseminated by school children. Before I leave this subject, as showing the exceptionally high death-rate of late prevailing in Newcastle, I may say that at a late meeting of the Elswick Burial Board it was stated that as regards the Elswick cemetery, the interments in December (235) were fifty in excess of any previous month since the opening of the cemetery in 1857.

Carlisle: Death of Dr. D. Scott Carlyle.

I regret to record the death of Dr. D. S. Carlyle, which took place on the 4th inst. at Warwick House, near Carlisle, in his sixty-fifth year. Dr. Carlyle was a mycologist of repute and a devoted collector of fungi of all descriptions, and up to the time of his last illness he was constantly sending specimens to Kew, many of them rare, and some of them occasionally new to Cumberland and to Great Britain. He lectured frequently on his favourite theme at meetings of the Carlisle Microscopical Society and the Carlisle Scientific and Naturalists' Field Club. His cabinets were filled with specimens, and it has been suggested that a place should be reserved for them in the new Carlisle Museum. Dr. Carlyle was physician to the Carlisle Fever Hospital and to the Dispensary, and during the many years he lived in the city he had a large practice, and was a great favourite with the rural population in the neighbourhood.

With regard to the sad accident to Mr. Dunlop, surgeon, of Leamside, noted last week in this correspondence, I am happy to say that the reports as to his condition continue favourable.

Newcastle-on-Tyne, Jan. 12th.

EPSOM COLLEGE.—F. G. Thomson, a pupil in the sixth form of the college, has gained a scholarship of £40 for Natural Science at Sidney Sussex, Cambridge.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Medico-Chirurgical Society of Edinburgh.

A SPECIAL meeting of this Society was held on Wednesday of last week, and was occupied by a demonstration from Mr. Harold Stiles, with limelight views, of the changes in the mammary gland in cancer with special reference to operative procedure. The first point he took up was that the gland was larger and extended over a greater area than was taught in the books, extending both higher and further into the axilla than was usually described. He had introduced a simple and practical test which indicated whether all the gland was removed or not. This was by placing the removed gland in a 5 per cent. solution of nitric acid; this solution had the effect of giving the glandular epithelium a yellow colour, and if this showed on the cut surface it indicated that the gland had been cut across and not removed at that part. He showed a number of slides illustrating this point, the glands being from operation cases. As to the mode of extension of cancer in the breast, he held wholly to the view that it took place by the lymphatics. He insisted on the importance of removing the whole gland and leaving no remnant of it behind. Passing from the mamma itself, he then dealt with the structure of parts in the axilla, and showed that they might be so slightly affected that no indication of involvement was present save by microscopic examination, and he therefore argued that in all cases the axilla ought to be cleared.

Edinburgh Association for the Reform of Medical Education.

A statement prepared by this Association for presentation to the Universities Commission has appeared in the local newspapers, and has been followed by a number of letters bearing upon the points raised by the statement, and most of these advocate even more forcibly than the statement itself the necessity for reform. The general tone is one of thorough dissatisfaction, and there promises to be even more plain speaking. The professoriate feel acutely the rebellion against their actions and judgment, for they are not accustomed to the strictures and criticisms now being hurled against methods and systems which have in the past been so remunerative, and with which they were abundantly satisfied.

Glasgow Medico-Chirurgical Society and Tuberculosis.

A memorial has been drawn up by the Medico-Chirurgical Society of Glasgow for presentation to the Police Commissioners, on the subject of the danger existing from the infectious nature of consumption or tuberculosis in man. The memorialists urge the necessity of preventing the sale of tuberculous meat, and dwell upon the danger arising from the use of milk given by cows kept in town byres. A rigid cleansing and disinfecting of byres and condemnation of carcases of animals known to be tuberculous are recommended. The Society suggest that the authorities should make widely known the fact that consumption is infectious, and suggest that the sanitary staff should extend its disinfecting operations to the houses of those suffering from the disease.

Health of Edinburgh.

The mortality last week was 114, making the death-rate 22 per 1000. Diseases of the chest accounted for 46 deaths, and zymotic diseases for 3. The intimations for the week were: Typhus fever, 4; typhoid fever, 4; diphtheria, 2; scarlatina, 16; and measles, 23.

Jan. 11th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The late J. H. Wharton, F.R.C.S.I., &c.

AT a meeting of the Standing Committee of the Meath Hospital, held last Monday, the following resolution was unanimously adopted: "That this committee, at their first meeting held after the lamented decease of their esteemed friend and colleague, Mr. James H. Wharton, desire to express their sincere sympathy with his family in their sore bereavement, and their unfeigned sorrow at the great loss which they have sustained. They also desire to record their grateful appreciation of the great interest which Mr. Wharton took in this institution, and the invaluable services which he rendered to it during a period of nearly forty years."

The Influenza Epidemic.

The epidemic shows no signs of abating, but on the contrary has increased in Dublin and various parts of Ireland. In Newry the cases have been exceedingly numerous, and churches have been closed because the officiating ministers were victims of the epidemic. Influenza is spreading rapidly throughout East Tyrone; it is very prevalent in Cookstown, and is on the increase in Dungannon, Coalisland, Coogh, and Pomeroy. A large number of deaths have occurred in these towns, and a large percentage of the inhabitants in the rural districts are affected. Mr. Z. Johnson, F.R.C.S.I., of Kilkenny, one of the oldest medical practitioners in this county, is seriously ill with influenza.

The Vartry Water-supply.

A special meeting of the Dublin Corporation was held on Monday to consider the allegations made against the water-supply of that city. Several members had visited Roundwood, and examined every drain and sewer in the village, and they asserted that there was no contamination entering the Vartry reservoir from any service. If any contamination did leave the village it would pass through 200 yards of a stream before it could get to the Vartry supply. Five samples of the water, all taken before the water entered the reservoir, were examined by Sir C. Cameron, medical officer of health and city analyst, who made careful observations of the surroundings of the reservoir. The filtered Vartry water contained no suspended matters, and included a few unimportant micro-organisms. It contained per imperial gallon albuminoid ammonia 0·006 grain, and saline ammonia 0·001 grain. The liquid from the upper part of the "Roundwood Drain" was slightly yellow, contained various micro-organisms, and had a slightly unpleasant odour; an imperial gallon yielded 0·027 grain of albuminoid ammonia and 0·012 grain of free ammonia. A specimen taken at the end of the drain contained per gallon 0·024 grain of albuminoid ammonia and 0·008 grain of free ammonia, while a specimen taken from the upper end of the drain yielded 0·013 grain of albuminoid ammonia and 0·011 grain of free ammonia. These facts and analyses are reassuring as to the quality of the water which supplies the city of Dublin, and it is to be hoped that we have heard the last of the damaging reports which of late have been circulated as to the alleged impurity of the Vartry.

Proposed Hospital for Consumption.

It is proposed to establish a National Hospital for Consumption for Ireland, and a provisional committee composed of influential members of the community has been formed. The matter is one of considerable importance, and I shall have something further to say about it in a future letter.

The Progress of Belfast.

The city of Belfast continues to increase by leaps and bounds, and its progress during the past year is quite remarkable, and altogether beyond that of any other town in Ireland. During the last twelve months 2215 new houses have been built in Belfast, and ninety new streets have come into existence. The buildings erected in 1891 exceed those of 1890 by 221, or about 9½ per cent. Taking the total buildings erected during the past thirty years, the average number per annum has been 1300, so that 1891 is about 71 per cent. above the average. The total valuation of Belfast in January, 1862, was £279,057; it is now £717,077. The rated wealth has therefore more than doubled. This increase has annually been about £14,600. This year that increase has nearly doubled. Of no other towns in Ireland—and it is doubtful if indeed of any in England or Scotland—can it be said that during the past thirty years the valuation has all but trebled, as in Belfast. I regret to say that the report presented by the medical officer of health at the meeting of the City Council on Jan. 1st shows that the health of Belfast is far from satisfactory. In the four weeks ending Dec. 19th there were 596 births and 813 deaths—that is, the death-rate so far exceeded the number of births that there was an actual decrease in the number of the population of 217. The death-rate was 41·4 per 1000; while for the corresponding four weeks in 1890 the mortality was only 25·3. The death-rate from diseases of the respiratory organs has been more than doubled by the influenza epidemic. It is now generally believed the maximum virulence of this disease has been

passed. It is a curious fact that typhus fever, which had almost died out, has again appeared, and is not confined to any particular district. The medical officer of health (Dr. Whitaker) says he cannot assign any cause for its reappearance. At the present time a great many horses are suffering from influenza. So much is this the case that the tram-service in consequence has been to a certain extent curtailed; and several other companies, employing large numbers of horses, have been much inconvenienced by the illness of their horses. This malady in horses is known as "pink-eye"; and although practically the whole stud of the Tramway Company (800 horses) has been infected, the rate of mortality has been very low—only 1½ per cent.

The Lord Chancellor has appointed Dr. Magee Finny, President of the Royal College of Physicians, to be Medical Visitor in Lunacy, in the place of the late Mr. Wharton.

Mr. Digby French, F.R.C.S.I., died on the 10th inst. at his residence, Clarinda Park, Kingstown, at the ripe age of eighty-five years. Mr. French formerly practised at Monivea, co. Galway, but retired many years since. Mr. French leaves three sons, all members of the profession.

Mr. Dunne, joint secretary of the Royal University of Ireland, died on Sunday last, after a short illness.

Jan. 12th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Recent Census in France.

THE last census gives the total population as 38,343,192, while that of the previous census was given as 38,218,903, thus showing an augmentation of the total population of the French Republic of 124,289 since 1886. During the period between 1881 and 1886—1881 being the epoch of the previous census—the increase was considerably greater—viz., 545,855—and this is noteworthy especially when it is remembered that the last census embraced a period which was longer by five months and a half than the period of the census before. The gravity of this decrease in the eyes of patriotic Frenchmen is not denied, but some plausible explanations are put forward by the compilers of statistics in the department of the Ministry of Commerce. It is submitted that in a certain measure the decrease may be largely accounted for by certain epidemics which visited the country in 1890, and by the crisis which affected the births thirty-six years ago, and which was considerably aggravated by the high mortality in 1854 and 1855. Moreover, it is further pleaded that as another factor in the causation of the diminution must be added the losses sustained in 1870–71. The men who died at this period were mostly able-bodied and young, and it is not unreasonably held that their disappearance in thousands would now be felt to influence the census in a downward direction. But however this may be, the Minister of the Interior is obliged to admit with regret that the population of "la Patrie" appears to be at a standstill. Others go further, and predict that the present quantity, although still a *plus* one, is destined ere long to become a minus one.

Massage in Headache.

M. Norstrom records twenty observations of cases of headache, which had proved refractory to all manner of treatment, successfully treated by massage. The patients were the subjects, not of migraine in the ordinary sense of the term, but of acute pain returning in paroxysms. M. Norstrom further records that he found in these cases numerous small indurations—which were generally overlooked—in the substance of the muscles of the neck. These indurations were very sensitive to the touch; he considers them as rheumatic in character, and believes they are the chief factor in the cause of the kind of headache under consideration. They are generally to be met with on the sterno-mastoid and trapezius, sometimes in the scalp itself. He believes that it is by the pressure they exert on the nerve filaments that they induce headache. For such cases he speaks highly of massage properly carried out. This should be gentle and long continued.

Laryngismus Stridulus treated by forcibly dilating the Larynx.

At a recent meeting of the Société de Thérapeutique M Constantin Paul read notes of a case of laryngismus stridulus which was successfully treated as follows:—The patient was a child of fourteen months old, which had for three nights in succession such severe attacks of laryngismus stridulus that its life was in danger and tracheotomy was thought to be necessary. This operation being, however, often fatal in children under two years, M. Paul requested his house physician to practise forcible dilatation of the larynx should another paroxysm supervene. The occasion arising, M. Malbec, the house physician, did forcibly dilate the child's larynx by means of a long polypus forceps, with the result that the attack was averted, and has not, moreover, since then recurred. M. Paul therefore recommends the manœuvre for trial at the hands of others.

Association of Foreign Physicians.

Another association of foreign medical men practising in France, on broader lines than the one already in existence, and which for various reasons cannot be called a brilliant success, has just been started. The number of foreigners practising in this country is difficult to estimate, but it is believed that Paris alone can boast of no fewer than 250, more than a tenth of the total number of Parisian practitioners.

Paris, Jan. 13th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Influenza Bacillus.

THE discovery of the germ of influenza was publicly announced on the 7th inst. in the lecture hall of Koch's Institute for Infectious Diseases. The discovery was made by two Berlin investigators, who worked independently and at different places: first by Dr. Richard Pfeiffer, head of the scientific department of the above-mentioned Institute; and then, a short time later, by Dr. Canon of the Moabit Hospital. The identity of Canon's bacillus with Pfeiffer's has been certified by Koch. Dr. Pfeiffer spoke first. When the influenza broke out again last November, Koch had entrusted him with the task of studying the disease, with a view to ascertaining whether it was caused by a micro-organism. Favoured by fortunate circumstances, he was able to solve the problem in a fortnight. He examined the sputum of influenza patients, first sterilising and cleansing it by Koch's methods, and then treating it with Ziehl's solution or Loeffler's hot methylene blue. A large number of micro-organisms then became visible under the microscope, and it soon appeared that they were mostly of the same kind. This was always the case with the sputum of patients suffering from influenza alone. When the disease was accompanied by other pulmonary disorders other bacteria were also visible in the sputum. The sputum of a large number of patients suffering from pulmonary and other diseases, but not from influenza, was examined, but no micro-organism possessing the qualities which characterised that found by Pfeiffer in influenza was found. It was intelligible that this bacillus had so long escaped detection, for it was far smaller than any micro-organism hitherto known, and the circumstance that its two extremities stained more intensely than the intervening parts gave them a striking resemblance to diplococci and streptococci. The bacilli were found copiously in the mucus and cells of the sputum; in the latter often degenerated. One of their characters was immobility. Dr. Pfeiffer's next task was to cultivate the bacillus in pure cultures, and here a new explanation of the lateness of its detection came to light. The colonies were so small that they could easily be overlooked. At first they were visible only under the magnifying glass. Glycerine agar had proved the best nutritive medium. The most characteristic thing about this bacillus was that the colonies did not flow together, but remained separate. The results of the examination of the sputum had been entirely confirmed by post-mortem examinations made by Pfeiffer in the bodies of six patients who had died of influenza. In all the influenza bacilli were found in the parts affected. He then tried to produce influenza in monkeys, rabbits, guinea-pigs, rats, pigeons, and mice by inoculating the bacilli, but had succeeded as yet only with monkeys and rabbits. In conclusion, Dr. Pfeiffer referred to the prophylactic measures indicated by his discovery, laying special stress on the importance of carefully removing the sputum of influenza patients. After Dr. Kitasato, who had assisted Dr. Pfeiffer in his researches, had said a few words, Dr. Canon reported on his independent discovery of the bacillus. He examined under the micro-

scope blood taken from influenza patients during fever, and found organisms hitherto unknown, which attracted special attention by the circumstances that they were found only in the case of feverish influenza patients, and disappeared from the blood as soon as recovery took place. Their number varied considerably. An examination of his discovery by Koch and Pfeiffer showed that his bacilli were the same as Pfeiffer's. Dr. Canon is of opinion that the detection of this bacillus in the blood of a feverish patient completely suffices to justify the diagnosis of influenza. It is interesting to note that Dr. Pfeiffer saw and even photographed the bacilli now recognised as the germs of influenza two years ago. Dr. Kirchner of Hanover believed that he had discovered the germ of influenza then. It was not so; but the genuine bacteria were in the photographs made for him by Pfeiffer. Their importance was not even guessed at that time.

Berlin, Dec. 12th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

The Drainage of Cairo.

IT will be remembered that the Egyptian Government employed Mr. Baldwin Latham two years ago to elaborate a scheme for the drainage of the capital, for which the fee of 800 guineas was paid. The native Ministry at that time was opposed to reform, and no further step could be taken until last spring, when the more enlightened Prime Minister of to-day came into power. Egypt begged the six great European Powers, without whose consent she is powerless to effect any new expenditure of her own savings, to authorise her to set apart half the octroi duties of Cairo to pay for the city's drainage scheme. France, pursuing her usual policy in this country, refused her consent; but has now imposed the following conditions which have been forced on unwilling Egypt. Any projects for the sewerage of Cairo must be submitted before Jan. 31st, 1892, to a committee of three engineers, English, French, and German, who are to report upon them to Egypt. If these three are not unanimous their difference is to be submitted to a fourth engineer, as arbitrator. The arbitrator may be chosen by them, provided he is not an Egyptian employé, and provided he is not of the nationality of any of the three. If they reject all the submitted schemes, they are empowered to prepare their own project; if, however, they select one of the proffered plans, its originator is to receive £200. The terms have been already advertised in three English journals, and are a ludicrous and ingenious device on the part of the French Government to delay a much-longed-for reform, the only objection to which is that it has been proposed by Englishmen. The £200 prize is absurdly small, and will hardly tempt English sanitary engineers of repute to compete; but, on the other hand, the various plans for dealing with Cairo sewerage which have been already brought before and rejected by the Egyptian Government will all be represented. The names of the three judges are not yet known, but it is said that France will nominate the chief engineer of the Paris drainage works.

The Tourist Season.

In spite of the absence of all drains, Cairo is exceptionally healthy, and the other towns of Egypt have a comparatively low rate of mortality. The weather has been more than usually bright and sunny since the beginning of November, though for two hours on the morning of Dec. 7th we had not only rain, but passing hail and thunder. Exactly half an inch of rain fell on this occasion, and owing to the absence of all street drains some of the lower parts of the town were flooded for two or three days, requiring the service of water-carts to empty the pools. A new market has lately been erected by the Wakfs under the supervision of the Public Works Department, a reform which has been greatly needed for years. Some energetic attempts on the part of sanitary and veterinary employés to examine the meat sold by European butchers were met with such determined opposition by French and Greek salesmen that the practice had to be abandoned. A native butcher selling unsound meat can be suitably punished, but the European, protected by his consul, cannot even be fined. Some cooked pork bought from a European last week was found to contain the Cysticercus cellulosæ, and this is, I believe, the first time it has been reported in Egypt.

Quarantine Congress at Venice.

The three delegates from Egypt have left for Venice. They are Boutros Pacha, the Coptic Under-Secretary of Justice, Mr. Miéville, the English President of the Alexandria Quarantine Board, and Dr. Mahmoud Pacha Sidki, the Egyptian Vice-Director of the Sanitary Department. Egypt's cause may possibly be further aided by one of the English representatives, Dr. Mackie of Alexandria. The Congress meets on the invitation of Austria, and will probably resolve itself into a duel between French and English, upon the vexed question of suspected ships passing through the Suez Canal without delay. The members for France are a very powerful trio, M. Camille Barrère, who was French Minister in Egypt some five years ago, Dr. Brouardel, who has already officiated at many congresses, and Dr. Proust, the eminent professor of hygiene. The constitution of the motley quarantine board at Alexandria is to be discussed, and it is to be hoped that some of its farcical proceedings will be put a stop to. A new tariff of taxation is to be proposed, raising the present fees almost three times what they now are. This will have the effect of enriching the finances of the Board and of relieving Egypt, while the Board itself will probably become even more international than it is at present. I may mention here that an English gentleman who reached Alexandria at the end of October from Syria was kept for eight days in quarantine there, for fear of cholera. He was then in the third week of a typical attack of enteric fever, which was not discovered by the doctor and other officials who visited him every day. He and his friends were afraid to declare the nature of his illness lest the whole number of passengers should be suspected of being cholera-stricken, and their imprisonment extended indefinitely. An inspection system which cannot detect enteric fever is not likely to be very efficacious against cholera. On the other hand, quarantine regulations against unclean pilgrims returning from Mecca to Egypt are, as the only method of enforcing cleanliness, of some value.

Cairo, Dec. 29th, 1891.

NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

MR. F. C. BATCHELOR has published a very interesting paper in the *New Zealand Medical Journal* on "A Year's Work in Abdominal Surgery." The paper was originally read before the Otago Branch of the Association at the Dunedin Hospital. During this period Mr. Batchelor's connexion with the hospital has been practically severed, and the paper in its present form is the result mainly of private cases. Mr. Batchelor opened the abdominal cavity in twenty-nine instances. They may be thus classified: Ovariotomies, 7; Tait's operation, 6; Hegar's, 1; Battey's, 5; hysterectomies—abdominal, 2; vaginal, 1; laparotomy (for various reasons), 7. These operations have been most successfully performed, for they have been conducted without a single fatality, the patients making, according to the detailed table which accompanies the paper, excellent and rapid recoveries. Under the heading of the ovariotomy operations Mr. Batchelor remarks that in the whole series the highest registered temperature was 100·4° on the third day. Tait's operation was performed six times. In every case the original condition of the patient was found to be so serious that the operation was considered absolutely necessary to save life or to render it bearable, and each case had previously undergone prolonged medical treatment without relief. As Mr. Batchelor very justly remarks, it is the operation for the removal of the ovaries, normal or abnormal, to induce the climacteric that is so open to debate. It is in this class of case that the enthusiastic gynæcologist in all parts of the world is so apt to overstep the bounds of prudence. The symptoms necessitating operation in Mr. Batchelor's opinion are described in detail, and every case seems to have been very carefully weighed. The result of these six cases shows a cure in one instance, no apparent advantage gained in one case, and improvement more or less in the remaining four. Mr. Batchelor remarks that during the past year he has taken no new or extraordinary antiseptic precautions, but has simply, as heretofore, endeavoured to carry out strict cleanliness in all surgical proceedings, which it would be impossible to do in the wards of a general hospital in an admittedly insanitary condition.

St. John Ambulance Association.

This Association has a flourishing branch in Christchurch. Mr. Hacon is to be congratulated on the results of his efforts to promote the Association, for it has now been doing excellent work for six years past. Branches, too, have been started in the principal towns of the colony, and much public benefit must accrue. There is, however, urgent need for good nurses throughout the colony, and medical men in practice experience great difficulty in obtaining really good nurses. A "Nurses' Directory" has been started in Auckland, and other parts of the colony would do well to follow the lead thus given. Good nurses receive good pay in this colony, and they are sure of obtaining employment; for anyone who has once gained the reputation of being an efficient nurse is eagerly sought after. Nurses coming to this colony from England I should strongly advise to go through the course of training such as is obtained at Queen Charlotte's Hospital, London. Nurses holding these certificates are not too readily found here.

Wanganui.

Tourists will be glad to learn that the Wanganui river, which has gained such a reputation for the beauty of its scenery, is now provided with a new steamer specially built for the tourist demands. The steamer is owned by Mr. Hatrick, and is subsidised by the Government. It is believed that she will do the journey to Pipiriki easily in the day, thus meeting a want which has long been felt. She has just made her initial trip, doing twelve miles an hour, and gave every satisfaction. She was built by Messrs. Yarrow and Co. of Poplar, and is so constructed that she draws only sixteen inches of water, and can be depended on to run regularly to Pipiriki, to which place and back to Wanganui makes 120 miles of river travelling. She runs in connexion with Messrs. Cook and Sons, and this enables tourists to readily visit the hot lakes from the west coast or *vice versâ*.

Obituary.

PROFESSOR BERKELEY HILL, F.R.C.S.

IT is with great regret that we record the death of Professor Berkeley Hill, which occurred on Jan. 7th at his residence in Wimpole-street. Mr. Hill's death is a great loss to the profession, and those who knew him best will mourn him most. Matthew Berkeley Hill, the youngest son of Matthew Davenport Hill, the first Recorder of Birmingham, was born on June 12th, 1834, at the Vale of Health, Hampstead. Berkeley Hill was educated at University College School, London, under Mr. Key, and also at Bruce Castle, Tottenham, the family school, which, at the time he was a scholar there, had passed from the management of his uncle, the late Sir Rowland Hill, into the hands of his (Sir Rowland's) brother, Arthur Hill. On his father's removal to the neighbourhood of Bristol, in 1851, Berkeley Hill took up the study of chemistry under Mr. Thornton Herapath, intending to take up the profession of analytical chemist; but eventually turned his attention to the study of surgery. He studied medicine at University College, with which he was connected during the whole remaining period of his life. Having taken the degree of M.B. and the Fellowship of the Royal College of Surgeons, and having passed a year as house surgeon in the Ormond-street Children's Hospital, he went abroad in 1861 for further study at Berlin (where he made the friendship of Virchow), Vienna, and Paris. He also visited several of the Italian hospitals, especially the one at Naples, which he described as being then much behindhand.

At the end of 1862 he commenced practice in Weymouth-street, and shortly after was appointed assistant surgeon to University College Hospital. In the spring of 1863 he "sat" for Sir Henry Thompson, who had been called to Brussels to operate upon the late King of the Belgians. In 1864, 1866, and 1869 he took a great part in promoting the passing of the various measures relating to contagious diseases. In 1870 the storm began which ended in their temporary abrogation. Berkeley Hill, as secretary to the Society (in conjunction with Mr. Curgenven) for the extension of these Acts to the civil population, spared neither strength, time, professional prospects, nor anything else in the cause. The abuse that was poured on him, in common with every one who tried to diminish human suffering, especially of the innocent, by means of this legislation; the falsehood which assailed him on every side, never caused him for a moment to swerve from what he knew to be right. The labour was enormous, but was cheerfully undertaken and persevered in for years. At one time he debated whether he should not devote himself entirely to this work, and relinquish practice altogether. In the autumn of 1870 he went to the districts devastated by the Franco-Prussian War to distribute the stores of the Red Cross Society, of which Colonel Lloyd Lindsay, now Lord Wantage, was the active chief. Berkeley Hill was elected on the Council of the College of Surgeons in 1884, and in 1886 was chosen one of the examiners for the College, and in 1891 Vice-President of the Council. Both in face and in character he greatly resembled his uncle, Sir Rowland Hill, especially in indomitable perseverance, in fertility of resource, and in the ability to grasp the salient points of every subject. In 1868 he married the youngest daughter of the late Sir Thomas Howell, of the War Office, by whom he had six children, five of whom survive him. Throughout his last illness he was attended by devoted professional friends, among whom may be mentioned Dr. Barlow, Dr. Eustace Smith, Mr. Marcus Beck, Mr. W. Meredith, and Mr. Charles Stonham, whose care and skill were employed to save him from all possible suffering.

Like his father and his uncle, Berkeley Hill was really public-spirited—ready, that is, to sacrifice energy, time, and money without a thought of self-seeking or the gratification of personal vanity. This was abundantly recognised by his colleagues at University College, who elected him Dean of the Faculty of Medicine for three years in succession, a term of office which is unprecedented, and who selected him to be the first representative of the Faculty upon the Council of the College so soon as the much-needed reform of admitting professors to the Council Board had been conceded. The improvement of the discipline of the College, the proposed rebuilding of the Hospital, and the establishment of a teaching university in London were among the questions which Berkeley Hill had much at heart, and in the furtherance of which he took a large part.

It was the recognition of his unselfish public spiritedness, in addition to his surgical and scientific eminence, which made doubly certain his election to the Council of the College of Surgeons in 1884. As a councillor or committeeman he was invaluable. His attendance could always be relied upon, and his clear-headedness, attention to business, and impartiality in decisions were certain. Another strong characteristic was tenacity of purpose. Having put his hand to the plough, Berkeley Hill was the last man to look back. His noble attitude with regard to the Contagious Diseases Acts was the best evidence of this, but it was also abundantly shown in many minor actions. His enthusiasm was easily aroused in what he regarded as a righteous cause, and although his decisions were at times impetuously taken, once arrived at he was not easily turned from them. When it has been said that a man was public-spirited and tenacious of his purpose, it is almost unnecessary to allude to his honesty; and yet in this instance it is well to do so, for Berkeley Hill's honesty was absolute. He was incapable of deception by look, word, or deed; and although his practice was a large one, and he retained the confidence of his patients in a manner quite unusual, it is well to place on record that his success was due to his sterling qualities as a practitioner, and in no degree to the arts and little artifices known as professional "side," for which, in all its forms, Berkeley Hill had a good-humoured contempt. In concluding this review of the moral qualities of the deceased, his kindliness and generosity must hold the place of honour. How many students and professional friends have experienced his goodness and generosity when stricken by illness or misfortune it would be hard to say. Though rather impassive on the surface, he had nevertheless a keenly sensitive nature, apt to be stirred by generous emotions, which evoked in him the neighbourly actions of a true Christian and the hospitable instincts of a thorough Englishman. No greater proof of this could be given than in the tokens of personal regard and of genuine grief shown in the wreaths which at the funeral lay on the coffin. Some of them were from men who, young and careless, were in danger of wrecking their life had not the wise counsel and the timely help of the elder man arrested and turned them back again into the path he himself persued. The pleasure he felt when such a young man gave evidence that the exertion had not been in vain was keen

indeed; but the secret had been so strictly kept that letters of gratitude, written by those who received this friendly help, only now reveal (even to his nearest relatives) what he had done. Of his intellectual endowments, his writings and his high professional status are the best evidence. That Mr. Berkeley Hill was in the very front rank of European syphilographers goes without saying, for his works are read and appreciated wherever surgery is studied. Not only is his great work, "Syphilis and Local Contagious Disorders," prepared with characteristic thoroughness and great clinical experience, accepted as a sound and exhaustive text-book, but it will be acknowledged that Berkeley Hill's enterprise and industry have done much to advance the surgery of the genito-urinary system in this country. The question of internal urethrotomy received his early thought, and not only did he call attention to the work of Otis in this direction, but he perfected methods and devised an operation and instrument of his own. In 1888 he was appointed Hunterian Professor of Surgery and Pathology at the College of Surgeons, when he chose Endoscopy as his subject—a subject which he was largely instrumental in bringing to the notice of the profession in this country.

In 1881 he communicated a case of the removal of a tumour from the female bladder by means of an écraseur through the dilated urethra. At this time only twenty-eight similar cases had been recorded. It must be borne in mind that Berkeley Hill was no mere specialist. His education had been liberal and broad. His knowledge of the classical and European languages was exceptionally good. He had travelled extensively throughout Europe, and had studied in Vienna, Paris, and Berlin. Having passed an honourable career as a student, he became demonstrator of anatomy, and during the time that he was acting as assistant surgeon at University College he produced a successful work on Bandaging, and made many contributions to general surgery. After his appointment to the Lock Hospital his attention became more and more restricted to his special subject; but his specialism was due entirely to the trust reposed in him by the profession and the eagerness with which his opinion was sought by those who appreciated his scientific acumen, clinical experience, carefulness, and honesty.

JAMES CHRISTIE, M.A., M.D.

DR. JAMES CHRISTIE was born at Strathaven in May, 1829. Trained and educated at the Glasgow University, he was ordained in 1856 as a dissenting minister, but a weakness in his throat led to his retirement from that field of labour, and in 1860 he obtained his degree of M.D. from the University of Glasgow. He was a general practitioner, not in the ordinary sense of the term, but in the widest sense—a man of extended knowledge, of erudite mind, and a painstaking and earnest seeker after truth. His views on the subject of medical education were very pronounced, and much in advance of his time. His residence as assistant physician at Gartnavel gave him an insight into psychological medicine which few general practitioners could hope to equal, and few alienists to surpass. He continued to take an interest in cases of insanity until the end of his career. He held the appointment of physician to the Sultan of Zanzibar, where he brought his acute observation and literary powers into action, with the result that on his return to Glasgow in 1875 he produced a much-esteemed book entitled "Cholera Epidemics in East Africa from 1821 till 1872." He wrote also on other tropical diseases, and on some of the great epidemics. A joint production of his with H. A. Fraser and Bishop Tozer appeared in London in 1871 on "The East African Slave Trade and the Measures proposed for its Abolition." While at Zanzibar he became acquainted with Dr. Livingstone, and it is said that Dr. Christie was the last white man the great traveller saw on his departure for his final exploration. The servant who embalmed Livingstone's body was one who had worked under Dr. Christie, and had probably acquired technical knowledge with him sufficient to enable him to do so. In 1876 he was appointed one of the surgeons to the out-patient department of the Glasgow Western Infirmary, being transferred a few years ago to the post of assistant physician in that institution. His special aptitude lay in the direction of literature. He wrote for the "Globe Encyclopædia"; he edited the *Sanitary Journal* almost from its commencement, a congenial work, and consequently carried out in a style worthy of a master in the science of sanitation. Dr. Christie was a corresponding member of the Medical and Physical Society of Bombay; an associate of the Society of Hygiene of France; secretary of the Epidemological Society of London for the district of the Indian Ocean and East Africa; and a number of various other learned societies.

His special knowledge of tropical diseases led to his being asked to write the articles on some of these subjects in Dr. M'Call Anderson's "Treatise on Skin Diseases" (1887). Another little production of his pen, on which he had expended much time, was "Epidemics of Dengue Fever: their Diffusion and Etiology." This appeared in the *Glasgow Medical Journal* in 1881. It has a special interest at the present time, when various authorities allege the relationship or the identity of our prevalent influenza with this peculiar disease. His connexion with Anderson's College, in which his interest was deep, began with his appointment to the chair of public health in that institution in the year 1878. In 1884 he was appointed to the chair of Physiology in that College. In that capacity he was a teacher of the few rather than of the many. He invariably kept up the attention of diligent students who were really anxious to learn, not by the aid of happy illustrations and appropriate anecdotes, but by the quantity and quality of the instruction which he conveyed. For those of an inferior class his lectures were almost too good, and delivered almost in too classical a style. Their literary merits were extremely high, and many note books are in existence from which his lectures might be printed almost without revision. Hampered as he was in many ways, he spared no pains and no personal expense to advance and attract the dilatory students. His sympathy with the class of students for which Anderson's College primarily existed was unbounded, and his generosity great almost to a fault. "I have," he said to the writer of this obituary notice, "very great sympathy with those students who have brains and but little money to enable them to advance. "But," he added confidingly and encouragingly, "if there are any I pity more it is those who have money and but little brains." He was beloved by his pupils and his colleagues for his unfailing kindness. His utterances at all times were listened to with the attention and the respect which a cultured mind and a gentlemanly bearing command. His death will be felt to be a distinct loss to the medical profession, and more especially to Anderson's College, in which, if not the greatest, he was certainly not the least, ornament. He was one of those

> "Whose good is quick and mighty, far and near,
> So that fruits follow it."

DR. G. D'ANCONA.

EGYPT was the principal scene of this eminent physician's life work, and, particularly at Cairo, he was the promoter of much that has since fructified to advantage in the teaching and the practice of medicine. A Tuscan by birth, Giacomo D'Ancona studied at Florence, his native city; thence he repaired to Pisa for systematic training in medicine and surgery, finally returning to Florence for the completion of his curriculum, with a view to graduation. After taking his degree, which he did with much distinction, having, among other honours, gained the Tacchini prize, he went to Paris, and there devoted himself sedulously to clinical observation and treatment. His reputation as an accomplished physician was now established, and he was chosen to fill the chair of pathology in the Medico-Chirurgical School, which, at the instance of Abbas Pasha, was to have been founded in Cairo, under the presidency of Professor Ranzi of Pisa. The school never actually took shape; but Dr. D'Ancona remained in Egypt for many years, promoting medical education in every way open to him, and filling the post of body-physician to the son of the Khedive. It was at this time that he made his well-known researches into the eye diseases peculiar to Egypt; but a call to Paris prevented his completing the publication he had begun on that theme. In the French capital he soon rose to a high position in the Italian colony, and also in general society, recommended as he was, not only by professional skill, but by quite a diplomatic finish of manner and address. He assisted the celebrated Dr. De Mars in his consultations on eye diseases and in the more delicate operations; while he had a *clientèle* of his own, scarcely less numerous, in other departments of practice. True to the interest he always

took in the profession, he represented Italy at many Congresses, medical and surgical, and superintended the Italian sections of not a few expositions of a scientific kind. For these and similar services he received the Orders of St. Maurice and of the Crown of Italy. Many benevolent institutions will miss his ever-ready sympathy and help, not least among them the "Società Italiana di Beneficenza" at Paris. His death took place quite suddenly at Pisa on the 8th inst., in his sixty-sixth year. He had returned in his usual health from Florence, where he had been the guest of his brother, the Senator D'Ancona, when he succumbed to an apoplectic seizure.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary comitia of the College took place on the 14th inst., the President, Sir Andrew Clark, Bart., in the chair. At the commencement of the proceedings the President alluded in feeling terms to the public calamity which had just fallen on the nation in the death of H.R.H. the Duke of Clarence, and, at his suggestion, the College, on the motion of Sir Joseph Fayrer, seconded by Dr. G. Harley, resolved to transmit an address of sympathy and condolence to Her Majesty the Queen, and their Royal Highnesses the Prince and Princess of Wales.

The President nominated Dr. Gee to be Bradshaw Lecturer for the present year.

Letters were read from the Royal College of Surgeons, the Registrar of the Branch Medical Council for Ireland, and the General Medical Council.

Permission was granted to Dr. S. Martin to deliver the Goulstonian lectures in the Theatre at the Examination Hall.

A report from the Committee of Delegates of the two Royal Colleges on the Scheme for a Five Years' Curriculum and the revised Regulations for Examinations were adopted, on the motion of Sir R. Quain, seconded by Dr. N. Moore. The President eulogised the labours of the Committee, which had been thus brought to a successful close.

The opinions of the Attorney-General and Sir Arthur Watson, Bart., Q.C., on the question of the non-registration of the licence and membership of the College as complete qualifications were read; and other questions in relation to the same subject were reported to the College by the registrar. The recommendation of the Committee of Management that the course of operative surgery given by Mr. Thomas Cooke be recognised for the ensuing year was adopted.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council of the above College, held on Thursday, the 14th inst., the minutes of the ordinary Council on Dec. 10th were read and confirmed.

On the announcement of the death of the Duke of Clarence and Avondale, as in the proceedings of the Royal College of Physicians, a vote of sympathy and condolence with Her Majesty and the Prince and Princess of Wales was unanimously agreed to.

The Secretary reported the death on the 29th ult. of Mr. John Wood, F.R.S., past Vice-President, member of Council, and member of the Court of Examiners of the College. The Secretary also reported the death on the 7th inst. of Mr. Matthew Berkeley Hill, Junior Vice-President, member of Council, and member of the Court of Examiners of the College. In each instance the Council unanimously passed a vote of condolence with the family of the deceased.

The vacancy in the Council caused by the death of Mr. Hill will be filled in July next, at the annual election. A Vice-President for the remaining period of the collegiate year will be elected at the next meeting of the Council in February, and the vacancy in the Court of Examiners will also be filled up at that meeting.

It was agreed that, as recommended by the Museum Committee, Mr. R. H. Burne, B.A. Oxford, be appointed anatomical assistant in the museum, at a salary of £150 per annum, subject to annual re-election at the Quarterly Council in July.

The report, dated Jan. 7th, 1892, from the delegates of the two Colleges, on the five years' course of medical study and examination, was read, approved, and adopted.

The Secretary reported that no dissertation had been received on "The Pathology and Treatment of Diseases of the Knee-joint," the subject of the Jacksonian Prize for the past year; or on "The Anatomy of the Third, Fourth, Fifth, and Sixth Cranial Nerves in the Vertebrata," the subject of the Collegial Triennial Prize.

The resignation of the Morton Lectureship by Mr. O. Pemberton was accepted, and the lecture will be given by Dr. G. Sims Woodhead on the 5th of May next.

A letter of the 14th ult. from Mr. C. S. Sherrington, hon. secretary of the Physiological Society, deprecating any curtailment in the proposed five years' curriculum of the extent or scope of the courses of Physiology already enforced by the existing requirements of the two Colleges, was read and laid before the Council.

A letter of the 4th inst. addressed to the President, from Sir Ralph Thompson, K.C.B., requesting, by direction of the Secretary of State for War, to be favoured with the views of the President on the suggestions for the mode of conducting the competitive examinations for admission to the medical staff of the army, was read and referred to a committee, consisting of the President, the Vice-president, Sir W. Savory, Bart., Sir W. Mac Cormac, and Mr. Macnamara.

At the request of the hon. sec. of the National Leprosy Fund, the Council authorised Mr. Hutchinson and Mr. Macnamara to continue to serve as its representatives on the Special Committee.

A letter of the 12th inst. from Mr. H. G. Howse was read, resigning, in anticipation of the termination of his period of office on Feb. 10th next, his appointment as a member of the Court of Examiners, his resignation to take effect from the completion of the Pass Examination for the membership, commencing on the 15th instant, and stating that he is a candidate for re-election.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Examiners on the 11th inst.:—

Anatomy and Physiology.—Michael J. Halton, student of Yorkshire College, Leeds; William W. Hoare, Extra-mural Academy, Edinburgh; Redmond J. Roche, Royal College of Surgeons, Ireland; William Tregenza, of Sheffield Medical School; Wm. H. Rowlands and John W. Pridmore, of Queen's College, Birmingham; James Fleming Baxter, of Westminster Hospital; and Claude F. Druitt, of Bristol School of Medicine and Mr. Cooke's School of Anatomy and Physiology.

Anatomy only.—George G. Oakley, of St. Bartholomew's Hospital: Basil Pares, of St. Mary's Hospital; Thomas H. Agnew, of University College, Liverpool; Daniel Fogarty, of Ledwich School, Dublin and Mr. Cooke's School of Anatomy and Physiology; Frederick A. L. E. Burgess, of Queen's College, Birmingham; Gerald G. Joynson, Thomas L. Webster, and William J. Bowden, of Owens College, Manchester; Frank Husband, of Bristol Medical School and Mr. Cooke's School of Anatomy and Physiology; Wilford Mettam, of Sheffield Medical School; Moses J. Reubens, of Grant Medical College, Bombay, and Mr. Cooke's School of Anatomy and Physiology; Oswald Challis, of St. George's Hospital; Arthur Emlyn, of University College; and Augustus P. Dantes, of Charing-cross Hospital.

Physiology only.—William C. Gent, of Bristol Medical School; Edward J. E. Coop, Horatio C. W. Wood, and Karl F. Cherry, of Queen's College, Birmingham; Matthias Bailey and John D. McD. Newlands, of University College, Liverpool; Edward Brabazon, of Trinity College, Dublin; William Mansergh, of Owens College, Manchester; Richard A. Fegan, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; Richard B. Power, of St. Thomas's Hospital; John W. Sweetlove, of Guy's Hospital: and William B. Murray, of King's College.

Passed on the 12th inst.:—

Anatomy and Physiology.—Arthur F. A. Flower, Gilbert H. W. Ellacombe, and Frederick W. Gale, of St. Bartholomew's Hospital; Stanley S. Argyle, of Melbourne University; Harry F. W. Armstrong and Frederick S. Collard, of St. George's Hospital; Allen Hair, of University College; Francis J. Brakenridge and Thos. G. Nicholson, of St. Thomas's Hospital; Henry R. Walker, of King's College; and Austin C. Fry, of Guy's Hospital.

Anatomy only.—Alfred N. Wilde and Percy W. G. Shelley, of St. Bartholomew's Hospital; Arthur S. Matthews, of St. Thomas's Hospital; Charles N. Barton, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; and Sylvestre A. Francisco, of King's College.

Physiology only.—Morgan D. Blake, of Owens College, Manchester, St. George's Hospital, and Mr. Cooke's School of Anatomy and Physiology; Edward A. McAnally, of St. George's Hospital; Thomas S. Farncomb, of Trinity College, Toronto, and Mr. Cooke's School of Anatomy and Physiology: and Sydney M. Meyrick, of St. Mary's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having previously passed the necessary examinations, and having now attained the legal age of twenty-five years, were at the quarterly meeting of the Council on the 14th inst. admitted Fellows of the College:—

Edmund Wilkinson, L.R.C.P. Lond., Queen's-terrace, W. Diploma of Member dated Aug. 2nd, 1888.

Ernest William Gurney Masterman, L.R.C.P. Lond., St. Bartholomew's Hospital. Diploma of Member dated Feb. 12th, 1891.

SOCIETY OF APOTHECARIES OF LONDON.—At the recent Primary Examination the following candidates passed in the subjects indicated:—

Part I.

Chemistry, Materia Medica, Botany, and Pharmacy.—A. W. Fyffe, Galway and Belfast; J. Scarr, Littlebrough; G. H. Wilkinson, Queen's College, Birmingham.

Chemistry.—L. M. Blake, Royal Free Hospital.

Materia Medica, Botany, and Pharmacy.—A. Hilton, Owens College, Manchester; A. W. Taylor, Edinburgh University; E. Wright, Queen's College, Birmingham.

Materia Medica and Botany.—F. T. Cole, King's College.

Pharmacy.—F. C. Bond and E. E. Evans, Royal Free Hospital; F. Mannin, Dublin.

Part II.

Anatomy and Physiology.—R. R. P. S. Bowker, Middlesex Hospital; W. J. H. Dawson, St. Thomas's Hospital; G. H. Pooley, Cambridge University and St. George's Hospital; G. H. Proctor, London Hospital; S. Smith, Middlesex Hospital; W. E. Stanton, Cambridge University and London Hospital; E. P. Staples, Cambridge University and St. Mary's Hospital; F. W. Sell, Cambridge University; F. A. Storr, Yorkshire College, Leeds; S. A. Stride, London Hospital; A. W. Taylor, Edinburgh; J. Thornton, London Hospital.

Anatomy.—S. Foster, St. Bartholomew's Hospital; A. E. Freer, St. Mary's Hospital; E. Grange, Edinburgh University; F. R. Heap, Bristol; T. Hopps, Owens College, Manchester; F. H. Humphris, Edinburgh University; T. E. Johnson, London Hospital; J. Joule, London Hospital; G. W. Pauli, Bristol; A. J. Pollard, Leeds; C. J. Underwood, Charing-cross and London Hospitals; A. Whitby, Dublin.

Physiology.—R. K. Bayley, St. Mary's Hospital; E. T. Fitzpatrick, Dublin; T. Gregg, St. Bartholomew's Hospital; F. B. Hargreaves, Owens College, Manchester; J. A. F. Hatch, Dublin; A. Hilton, Owens College, Manchester; E. S. L. Lovell, Charing-cross Hospital; A. C. McLean, King's College; J. B. D. St. Cyr, St. Bartholomew's Hospital; J. J. Winn, London Hospital.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors held on the 12th inst., T. Russel Pickthorne, Esq., Inspector-General, in the chair, the sum of £56 was distributed among the several applicants.

THE REVENUES OF LONDON CHARITIES.—According to the "Classified Directory to the Metropolitan Charities," the total revenue for the past year of the charitable institutions having their headquarters in London amounted to over six millions sterling—or, to be precise, £6,060,763. This total included £2,658,212 for home and foreign missions; £200,251 raised on behalf of the blind, deaf and dumb, incurables, and idiots; £655,790 for hospitals; £504,423 for pensions and relief of the aged; £750,000 for the Salvation Army, and £130,000 for the Darkest England Fund.

CLERICAL, MEDICAL, AND GENERAL LIFE ASSURANCE COMPANY.—The directors of this company have issued a bonus report announcing the thirteenth division of profits among the members and policyholders of the Society. The valuation has upon this occasion been made upon the extraordinarily stringent basis of interest assumed to be earned as 2½ per cent., and mortality assumed to be conformable to that exhibited by the tables known as H^M and H^M 5. The funds of the Society have during the past quinquennium actually earned a little over 4 per cent., and the deaths actually recorded have numbered fewer than 72 per cent. of the number which might upon the assumed basis have been expected to occur. In respect of both these matters, therefore, it is confidently anticipated that the next quinquennium will exhibit a great improvement upon the calculated figures, and that future surpluses will be commensurately large. On the present occasion the directors are able, notwithstanding the very conservative policy which they have adopted, to divide a large sum by way of bonus, and the share in this division which falls to the policyholders is increased by the circumstance that the shareholders have consented to a limitation of the amount of their share in the divisible surplus.

FOOTBALL CASUALTIES.—A youth aged eighteen, whilst playing football last week on the Wilford Grove football ground, fractured his leg, and was conveyed to the Nottingham General Hospital.

ESSEX COUNTY COUNCIL.—Mr. Edward Tidman, C.E., F.S.I., of Westminster, has just been appointed by the Technical Education Committee of the Essex County Council lecturer on Hygiene, and will shortly commence a course of lectures under their auspices.

CLIMATOLOGY.—The council of the Royal Meteorological Society have arranged to hold at 25, Great George-street, S.W. (by permission of the president and council of the Institution of Civil Engineers), from March 15th to 18th, an exhibition of instruments, charts, maps, and photographs relating to climatology.

OLDHAM INFIRMARY.—The Board of Governors of this institution have opened an Eye Department, and at a recent meeting Griffith Apthomas, M.B., C.M. Edin., was elected eye surgeon. There is an honorarium of £30 per annum attached to the office, which is tenable for eight years, with the privilege of re-election.

DIPHTHERIA AT FINSBURY BARRACKS.—In consequence of many cases of diphtheria having occurred since last August amongst the permanent staff of the 4th Battalion Royal Fusiliers (City of London Militia) and their families, quartered in the Finsbury Barracks, the War Office has ordered the whole of the men and other occupants of the place to be moved to the Milton Barracks, near Gravesend.

UNIVERSITY OF CAMBRIDGE: DIPLOMA IN PUBLIC HEALTH.—Mr. Robinson announces a course of practical instruction in Hygiene for the Public Health diploma examination in the Lent term, beginning Jan. 20th; and also a six months' course in the same subject, beginning April 20th. Applications may be made to Mr. Robinson at the University Chemical Laboratory, Cambridge.

GENERAL PRACTITIONERS' ALLIANCE.—The committee appointed at a meeting of the General Practitioners' Alliance to arrange the details for a complimentary dinner to Dr. F. H. Alderson and Mr. George Brown, president of the Alliance, in recognition of their services in contesting the recent election of direct representatives to the General Medical Council, have decided that the dinner shall take place at the Holborn Restaurant on Thursday, the 28th inst., at 7.30 P.M. We are requested to state that members of the profession who wish to be present should send their names before the 25th inst. to the hon. secretary, Mr. Campbell Boyd, 108, Denmark-hill, S.E.

PRESENTATION.—Mr. William Francis, L.R.C.P. Lond., M.R.C.S., on his relinquishing the position of resident house surgeon at the West Ham Hospital, Stratford, which he had held for upwards of ten years, has been presented by his medical colleagues on the staff and friends with a handsome operation case and a purse containing thirty-two guineas, as tokens of esteem.—Mr. F. H. Forshall, L.R.C.P. Lond., M.R.C.S., M.R.C.P. Edin., of Highgate, has been presented by his patients and friends with several pieces of old silver plate, and an artistically illuminated address in an album form, bearing the names of all the subscribers, as tokens of their esteem, and as a recognition of his unfailing generosity to the poor during a residence and professional career in Highgate for nearly thirty years.

IMPORTANT SHIPPING CASES.—Capt. J. L. Parfitt, master of the ss. *Clyde*, appeared at Bow-street police-court on Friday last to summonses taken out at the instance of the Board of Trade for contraventions of the Merchant Shipping Act, by neglecting to make entries in the official log-book in cases of illness, and the nature and treatment thereof. From the evidence adduced it appeared that the *Clyde* was bound from Bombay to Plymouth, and that an outbreak of influenza occurred amongst the crew, owing to which some of them were incapacitated from duty from three to seventeen or eighteen days. The surgeon reported the matter to the captain, but the latter failed to record it. Mr. Vaughan imposed penalties of £1 and costs in three cases, and £5 and costs in a fourth. He was asked to state a case, but declined.—A similar action to the above is being taken by the committee of the Cardiff Port Sanitary Authority against the captain of a vessel for discharging a man suffering from small-pox without giving notice to the authorities.

THE SANITARY INSTITUTE.—The programme has been issued of the thirteenth course of lectures and demonstrations for sanitary officers. These lectures, which are specially adapted for candidates preparing for the Institute's examinations for Inspectors of Nuisances, will be delivered on Tuesdays and Fridays at 8 P.M. The first lecture will be given on Friday, Jan. 29th.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BEADLES, CECIL F., M.R.C.S., L.R.C.P., has been appointed, *pro tem.*, Assistant Medical Officer to Colney Hatch Lunatic Asylum, vice H. G. Shaw, on sick leave.

BURKITT, J. C. S., M.D., M.Ch. Irel., has been reappointed Medical Officer of Health for the Whitwick Urban Sanitary District of the Leicester Union.

BYLES, J. B., L.R.C.P. Lond., M.R.C.S., has been appointed Junior House Physician to Westminster Hospital.

CHEETHAM, W. H., M.D., M.R.C.S., L.S.Sc., of Guiseley, has been appointed Certifying Surgeon under the Factory Acts for the Guiseley, Yeadon, and Baildon Districts, vice Hepworth, deceased.

FOXCROFT, FREDERICK W., M.B., C.M., has been appointed Assistant House Surgeon to the General Hospital, Birmingham.

FOX, E. L., M.A., M.D. Camb., M.R.C.P. Lond., has been appointed Physician to the Plymouth Public Dispensary.

FULLER, J. REGINALD, M.R.C.S., L.R.C.P., L.S.A. Lond., has been appointed Fifth Assistant Medical Officer to the London County Lunatic Asylum, Hanwell.

HAMILTON, R. J., M.R.C.S., has been appointed an additional Honorary Surgeon to the Stanley Hospital, Liverpool.

HUGHES, S. H., M.R.C.S., L.R.C.P., L.S.A. Lond., &c., has been appointed Junior Resident Medical Officer to the Royal Free Hospital, vice E. Trevethick, M.B. Cantab., resigned.

JACKSON, GEORGE, F.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer of Health for the Compton Gifford Urban Sanitary District.

JONES, R. L., M.R.C.S., has been appointed Honorary Physician to the Carnarvonshire and Anglesey Infirmary.

MILLS, H. H., L.R.C.P. Lond., M.R.C.S., has been appointed Junior House Surgeon to Westminster Hospital.

MOXEY, VINCENT, M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Surgeon to the Oldham Infirmary.

OWEN, ARTHUR DEAKER, M.R.C.S., L.S.A. Lond., has been appointed a Government District Surgeon of Perak, Straits Settlements.

PERNET, GEO., M.R.C.S., L.R.C.P. Lond., Assistant to Out-patients, has been appointed Surgeon and Physician to University College Hospital.

SIMCOCK, J., M.B., B.Ch. Vict., has been appointed Resident Medical Officer to the St. Mary's Hospital, Manchester, and the Manchester and Salford Lying-in Institution.

STONHAM, H. A., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Obstetric Assistant to Westminster Hospital.

SWIFT, W. J. C., M.R.C.S., has been appointed Medical Officer to the Foundling Hospital, vice H. W. Statham, resigned.

TEBBS, W. H. A., L.R.C.P. Lond., M.R.C.S., has been appointed Senior House Surgeon to Westminster Hospital.

VAUDREY, E., M.D., C.M. Edin., M.R.C.S., has been appointed Physician to the Derbyshire Royal Infirmary, vice Ogle, resigned.

YULE, R. M., M.D., C.M. Abend., has been appointed Medical Officer for Lerwick, vice Skae.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Resident House Surgeon. Salary £60, with board and washing.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary £40 per annum, with board, washing, and attendance.

CHELSEA, BELGRAVE, AND BROMPTON DISPENSARY, 41, Sloane-square, S.W.—Surgeon.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Medical Officer for two years. Salary £80 per annum, with board, lodging, and washing.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Surgeon. Board and lodging provided.

ECCLES AND DISTRICT MEDICAL ASSOCIATION.—Medical Officer. (Apply to the Secretary, 15, Byron-street, Patricroft.)

GENERAL HOSPITAL, Birmingham.—Assistant Surgeon for three years. Honorarium £100 per annum.

GENERAL HOSPITAL, Birmingham.—Three Assistant House Surgeons for six months each. Residence, board, and washing provided.

GENERAL INFIRMARY, Northampton.—House Surgeon. Salary £125 per annum, with furnished apartments, board, attendance, and washing.

LIVERPOOL DISPENSARIES.—Head Surgeon. Salary £200 per annum, with apartments, board, and attendance. (Apply to the Secretary, Leith Offices, 34, Moorfields, Liverpool.)

LONDON THROAT HOSPITAL, 204, Great Portland-street, W.—House Surgeon.

NORFOLK AND NORWICH HOSPITAL.—Assistant to the House Surgeon for six months. Board, lodging, and washing provided.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone, N.W.—Resident Medical Officer. Salary £60 per annum, with board and residence in the hospital.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon. Board and rooms provided.

ROYAL SOUTH LONDON DISPENSARY.—Surgeon-in-Ordinary. Honorarium £20 per annum. (Apply to Resident Officer, St. George's Cross, S.E.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Assistant House Surgeon for six months. Board, residence, and washing, and an honorarium of 15 guineas at expiration of term of office.

ST. LUKE'S HOSPITAL.—Resident Clinical Assistant for six months. Board and residence provided.

ST. OLAVE'S UNION.—Dispenser of Medicines and Medical Officer's Clerk (non-resident). Salary at the rate of £80 per annum. (Apply to Mr. Fenton, Clerk's Offices, St. Olave's Union, 30, Tanner-street, Bermondsey, S.E.)

ST. JOHN'S-WOOD AND PORTLAND TOWN PROVIDENT DISPENSARY, 1, Henstridge-villas, N.W.—Medical Officer.

THE COPPICE, Nottingham.—Assistant Medical Officer. Salary £120 per annum, with furnished apartments, board, washing, and attendance.

TRUSTEES, care of H. Ellis, Esq., 4, Pettycury, Cambridge.—Resident Medical Superintendent for a Private Asylum. Salary £150 to £200 per annum, with board and residence in the Asylum.

WEST DERBY UNION.—Resident Assistant Medical Officer at Belmont-road Workhouse. Salary £100 per annum, with rations. (Apply to the Union Clerk, Brougham, West Derby-road, Liverpool.)

Births, Marriages, and Deaths.

BIRTHS.

BARRINGTON.—On Jan. 11th, at Meerut, India, the wife of Surgeon-Major Barrington, of a daughter.

BEAUCHAMP.—On Dec. 8th, at Cromwell-road, S.W., the wife of Dr. Sydney Beauchamp, of a daughter.

BOND.—On Jan. 9th, at Leyton, Essex, the wife of Mayston Bond, M.R.C.S., L.R.C.P., of a daughter.

CRONK.—On Jan. 8th, at Repton, Derbyshire, the wife of Herbert Geo. Cronk, M.B., of a son (Arnold George), who only survived his birth three days.

DAVIES.—On Jan. 8th, at 23, Finsbury-square, the wife of Arthur Templer Davies, B.A., M.D., M.R.C.P., of a daughter.

ELKINGTON.—On Jan. 8th, at Newport, Salop, the wife of E. A. Elkington, M.B. Lond., of a daughter.

ROBINSON.—On Jan. 4th, at High-street, Lewisham, S.E., the wife of Louis Robinson, M.D., M.R.C.S., of a son.

SPOOR.—On Jan. 12th, at The Hydro', College green, Bristol, the wife of Dr. Spoor, of a son.

WALLER.—On Dec. 29th, the wife of Augustus D. Waller, M.D., of a son.

MARRIAGES.

CLARKE—COX.—On Jan. 9th, at Woolwich, Charles Frederick Clarke, M.R.C.S., L.S.A., M.A.I., of Huxley House, Park-road, Plumstead, to Minnie, youngest daughter of Joseph Cox, of Woolwich.

KANE—HAMILTON-JONES.—On Jan. 7th, at Monkstown Church, county Dublin, J. G. Auriol Kane, Esq., M.D., of Exmouth, Devon, only son of W. F. De Vismes Kane, Esq., J.P., of Drumreaske House, Monaghan, and Sloperton Lodge, Kingstown, to Adeline Ida Sara, youngest daughter of the late Thomas Morris Hamilton-Jones, D.L., of Moneyglass House, county Antrim.

LOVELL—TURLE.—On Jan. 6th, at St. Mary's, Wimbledon, Charles P. Lovell, M.A., M.B., B.Ch. Oxon., M.R.C.S., only son of Samuel Lovell, Gloucester-gardens, to Clara Jane, the only daughter of the late Henry Turle, of Taunton.

WHITE—WILLETT.—On Jan. 7th, at St. Andrew's, Wells-street, by the Rev. Frederic Willett, M.A., assisted by the Rev. C. H. Simpkinson, M.A., Vicar of St. Paul's, Walworth, and the Rev. Sir William Hyde Parker, Bart., Charles Percival White, M.A., M.B., of 144, Sloane-street, S.W., younger son of Robert Owen White, Esq., of 180, Cromwell-road, S.W., to Marian Irene, daughter of the late C. V. Willett, Esq., and granddaughter of the late William Willett, Esq., of West House, Brighton.

DEATHS.

BAKER.—On Jan. 4th, at Rostherne, Wimbledon, Jas. Edmund Baker, M.R.C.S., aged 52.

GILBERT.—On Jan. 7th, suddenly, at his residence, Oxford-street, Bilston, Staffordshire, H. Gilbert, M.R.C.S.

HILL.—On Jan. 7th, at Wimpole-street, Matthew Berkeley Hill, M.B., F.R.C.S., youngest son of Matthew Davenport Hill, Q.C.

PARSON.—On Dec. 21st, at White Ladies'-road, Clifton, Thomas Cooke Parson, M.R.C.S., L.D.S., aged 49.

POWELL.—On Jan. 9th, at City-road, E.C., Josiah Taylor Powell, M.D.

SCOTT.—On Jan. 9th, at the residence of his brother, Lingfield-road, Wimbledon, Dr. Geo. Scott, of Lower Prospect-place, Southampton, in his 63rd year.

SLAUGHTER.—On Jan. 9th, at Alderden Manor, Sandhurst, Kent, George Monas Slaughter, Surgeon-General M.S., of Farningham and Sandhurst, aged 60.

TIMINS.—On Jan. 8th, at Somerset-place, Bath, Chas. Timins, F.R.C.S., H.E.I.C.S., aged 77.

WILSON.—On Jan. 9th, at Alexandria, Perth, Brigade-Surgeon Frederick Robert Wilson, eldest surviving son of the late Robert Wilson, of Waterloo-road, Dublin.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

BAUSCH & LOMB OPTICAL COMPANY, Rochester, New York; and W. P. COLLINS, Great Portland-street, London, W.
Manipulation of the Microscope. By Edwd. Bausch. Illustrated. Tenth Thousand. 1891. pp. 127.

CHURCHILL, J. & A., New Burlington-street, London.
A Treatise on Diseases of the Lungs and Pleura. By the late Wilson Fox, M.D., F.R.S. Edited by Sidney Coupland, M.D., F.R.C.P. 1891. pp. 1200.

HUMBOLDT PUBLISHING COMPANY, New York.
Mental Suggestion. By Dr. J. Ochorowicz. With a Preface by Charles Richet. Translated from the French by J. Fitzgerald, M.A. pp. 369. Price 10s. 6d.

JARROLD & SONS, Paternoster Buildings, E.C.
Medical Notes and Essays. Fasciculus II. By Sir Peter Eade, M.D. Lond. 1891. pp. 84.

LAYTON, C. & E., Farringdon-street, London.
The Law of Life Assurance. By C. J. Bunyon, M.A. Third Edition. By the Author and J. V. Vesey Fitzgerald, Barrister-at-Law. 1891. pp. 643.

LONGMANS, GREEN, & CO., London.
Richard Wiseman, Surgeon and Sergeant-Surgeon to Charles II. A Biographical Study. By Surgeon-General Sir T. Longmore (retired), C.B., Q.H.S., F.R.C.S. Illustrated. 1891. pp. 210. Price 10s. 6d.
New Fragments. By John Tyndall, F.R.S. 1892. pp. 500. Price 10s. 6d.

MACMILLAN & CO., London and New York.
A Treatise on the Ligation of the Great Arteries in Continuity. By C. A. Ballance, M.B., M.S. Lond., F.R.C.S., and Walter Edmunds, M.A., M.C. Cantab., F.R.C.S. Illustrated. 1891. pp. 568.

NEW SYDENHAM SOCIETY, London.
Lectures on Diseases of the Digestive Organs. By Dr. C. A. Ewald. Translated from the German Edition by Robert Saundby, M.D. Edin., F.R.C.P. Lond. Vol. I.: Lectures on Digestion. 1891. pp. 214.
The New Sydenham Society's Lexicon of Medicine and the Allied Sciences. Part XVIII. Mit—Nec.

RENSHAW, HENRY, 356, Strand, London.
A Dictionary of Treatment. By Wm. Whitla, M.D. 1892. pp. 948.

UNWIN, T. F., Paternoster-square, London.
Power and Force, Spiritual and Natural. By J. B. Keene. 1891. pp. 94. Price 3s. 6d.

Essays on Acromegaly; by Dr. P. Marie and Dr. Souza-Leite (1891).—Mikrophotographischer Atlas der Bakterienkunde: von Dr. C. Fraenkel und Dr. R. Pfeiffer (August Hirschwald, Berlin, 1891).—Die Quarantäne Station El Tor; von Dr. P. Kaufmann (A. Hirschwald, Berlin, 1892).—Introduction to the Antiseptic Treatment of Wounds; by Surgeon Captain C. R. Kilkelly, M.B. (Percival & Co., London, 1891); price 2s.—Chemische Untersuchung der Trink- oder Bergquelle des Königlichen Bades Bertrich (C. W. Kreidel's, Wiesbaden, 1891).—Sull'Acetonuria: Sperimentale Ricerche del Prof. A. Lustig.—On Certain Arrangements made in the City of Glasgow, 1866, with a view to the Prevention of Epidemic Cholera: with an Appendix; by W. T. Gairdner, M.D., LL.D. (reprint, 1891).—Atlas of Clinical Medicine; by B. Bramwell, M.D., F.R.C.P. Edin. Vol. I., Part III. (T. & A. Constable, Edinburgh, 1891).—The Strange History of a Dynamo; by T. E. Gatehouse (H. Alabaster, Gatehouse, & Co., London); price 1s.—Parturition rendered Safe and comparatively Painless: the Atmospheric Tractor and the Uterine Safety-tube; by P. McCahey, M.D. (J. T. O'Callahan, Philadelphia, 1891).—Bulletins et Mémoires de la Société de Médecine Pratique de Paris. No. 20, Octobre, 1891 (Palais des Sociétés Savantes, Paris).—A Hint to the Literary Men of the Profession; by C. P. Fisher, Philadelphia (reprint).

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on January 12th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	212	59	..	45	3	319	442
North-Western Hospital	262	32	..	16	..	310	411
Western "	98	22	..	19	1	140	224
South-Western "	197	41	..	27	2	267	350
South-Eastern "	203	18	4	71	5	301	424
Northern "	416	20	..	25	..	461	480
Totals	1388	192	4	203	11	1798	2331

SMALL-POX.—*Atlas* hospital ship, 4.

Medical Diary for the ensuing Week.

Monday, January 18.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. R. M. Gunn: External Examination of the Eye.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Heart, Valvular Lesions.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Professor W. Rose: The Surgical Treatment of Trigeminal Neuralgia. (Second Lettsomian Lecture.)

Tuesday, January 19.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. J. Hutchinson: Contagion in Diseases of the Skin. Bethlem Hospital: 2 P.M., Dr. Percy Smith: Hypochondriasis and Melancholia.—Charing-cross Medical School: 8 P.M., Dr. Playfair: On the Removal of the Uterine Appendages.
PATHOLOGICAL SOCIETY OF LONDON.—Dr. A. A. Kanthack: Two Specimens of Fungoid Disease (Madura Disease) of Hand and Foot.—Mr. J. J. Clarke: Fibroma of Small Omentum.—Dr. Arnold Chaplin: Ulcerative Endocarditis affecting the Pulmonary Valve.—Mr. C. B. Lockwood: Polypus of the Small Intestine associated with Intussusception.—Dr. Leonard Guthrie: A Toad whose Mouth and Nostrils were attacked during life with the Larvæ of Blow Flies.—Dr. H. D. Rolleston: Thrombosis of Splenic Vein associated with Infarcts. Card Specimen:—Dr. F. C. Turner: Malformed Heart.

Wednesday, January 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. H. Mackenzie: Mitral Valvular Disease.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Q. Silcock: Glaucoma. Parkes Museum: 1 P.M., Dr. Louis C. Parkes: Water.
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Brigade-Surgeon Dr. R. Pringle: What is Efficient Vaccination?
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Annual Meeting. President's (Dr. R. Braithwaite) Address.

Thursday, January 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
ROYAL INSTITUTION.—3 P.M. Mr. A. S. Murray: Some Aspects of Greek Sculpture in Relief.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. O. Sturges: Illustrations of Heart Disease in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Tooth: Anatomy of the Spinal Cord.—London Throat Hospital, Great Portland-st.: 8 P.M., Mr. W. R. H. Stewart: The Examination of Ear Cases.

Friday, January 22.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. H. Mackenzie: Aortic Valvular Disease.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: The Microscope (Types of Bacteria).—Charing-cross Medical School: 8 P.M., Dr. Playfair: Chronic Endometritis.

CLINICAL SOCIETY OF LONDON.—Living Specimens at 8 P.M.: Dr. Frederick Taylor: A case of Tracheal Tugging in Aneurysm of the Arch of the Aorta.—Mr. Bernard Pitts: (1) After-operation for Double Inguinal Hernia and Ectopia Vesicæ: (2) After-treatment for Double Ankylosis of Hip (scissor-legged deformity).—Dr. Coutts and Mr. L. A. Dunn: A case of Hypertrophy of the Left Lower Extremity.—Dr. Hadden: A case of Aphasia.—Mr. C. Mansell Moullin: A case of Laminectomy for Fracture of the Lumbar Spine. Mr. Openshaw: A case of Intra-uterine Amputation of both Legs, with Symmetrical Malformation of Fingers and Toes, and Talipes Varus on the Side. Papers at 9 P.M.:—Mr. Herbert Allingham: A case of Punctured Wound of the Thigh; Femoral Artery and Vein Divided; Ligature of Proximal and Distal Ends; Gangrene of Leg: Amputation through Knee-joint.—Dr. W. M. Ord and Mr. H. B. Robinson: A case of Suppurating Hydatid of Lung treated by Incision.—Mr. C. Mansell Moullin: A case of Hydatid Cysts of Liver; Rupture into Peritoneal Cavity; Abdominal Section.

ROYAL INSTITUTION.—9 P.M. Lord Rayleigh: The Composition of Water.

Saturday, January 23.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Insanity of Adolescence.

ROYAL INSTITUTION.—3 P.M. Professor J. A. Fleming: The Induction Coil and Alternate-Current Transformer.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 14th, 1892

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
Jan. 8	29·43	N.W.	31	..	50	37	30	..	Overcast
„ 9	29·42	N.W.	32	..	38	33	30	·02	Overcast
„ 10	29·51	N.W.	30	..	49	35	25	..	Overcast
„ 11	29·81	N.W.	36	35	47	38	30	·04	Overcast
„ 12	29·92	N.W.	28	..	41	38	23	·01	Cloudy
„ 13	29·76	N.W.	36	34	41	38	28	..	Overcast
„ 14	29·49	N.W.	34	32	44	36	32	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

CARPENTER AND DUKES FUND.

THE following additional subscriptions to the above fund have been received:—

Drs. Bowes and Norton	£2	2	0	Mr. Major	£1	1	0
Drs. Ord, Harrison, and Burgess	3	3	0	Surgeon-Major Poole	0	10	0
Dr. Neale	0	10	6	Dr. Green	0	10	6
Dr. Rand	2	2	0	Mr. H. Cleaver	2	2	0
Mr. Wilson	2	2	0	Mr. S. B. Mesquita	0	10	6

50, George-st., Croydon, Jan. 12th, 1892. WM. F. COLES, Treasurer.

Etiquette.—We recognise our correspondent's motives in his question. We strongly advise him not to insert such additions and descriptions in his bills. They are unusual, and would look like advertising.

A. W.—We have no special information to give. Our advertising columns might be consulted.

J. W. F. is referred to a general notice given above.

ACUTE RHEUMATISM AND THE TEMPORO-MAXILLARY ARTICULATION.

Mr. Hugh Lane of Bath writes on this subject, in reply to Mr. Flemming, as follows:—

"What I hoped to convey was that in a very large number of observations I found that the temporo-maxillary joint was never implicated in our rheumatic arthritis—an arthritis having its origin in acute or subacute rheumatism, whether gradually merging into the arthritis or occurring some considerable time after. This disease possesses positive and incontestable features of its own sufficient to justify me in placing it under a different heading from chronic rheumatoid arthritis, which we have shown to have no connexion with rheumatism, but which is closely allied to struma and phthisis, and often with hereditary history of gout. In this disease it is a common thing to find the temporo-maxillary joint affected, and when monarthritis exists especially is this the case (monarthritis being rare in our rheumatic arthritis, except in the form following gonorrhœal rheumatism)—so much so that I have now begun to look upon the disease as diagnosed with a comparative degree of certainty by calling it rheumatoid arthritis, should the temporo-maxillary joint be at all implicated. This is what we have seen to be the case by actual experience. We have, in fact, proved that an important connexion exists between this joint and rheumatoid arthritis. The value of correct differentiation between these conditions is paramount when the question of treatment arises—as, for instance, in the great difference in the dietetic treatment of rheumatic and rheumatoid arthritis. In the former it is advisable to refrain from nitrogenous articles of diet—sugar, porter, beer, &c.: but in the latter there seems to be no indication for their interdiction, rather the reverse—in fact, the diet should be generous. Discrimination should be exercised more in rheumatoid arthritis; and not following out this system has, I feel convinced, occasioned much harm. The idea that rheumatism plays a part and is treated accordingly exerts to an enormous degree a very baneful effect in cases of rheumatoid arthritis; while, on the other hand, treating the strumous tendency by cod-liver oil, arsenic, steel, &c., is productive of the very best results. Therefore I still think that the prominence given to connexion between this joint and rheumatism is a step in the wrong direction, and liable to do harm and cause confusion by connecting with rheumatism the only joint that appears to enjoy immunity from the results of the disease, but which, on the contrary, is a most valuable diagnostic agent of rheumatoid arthritis."

Mr. Josiah C. Carter.—Our correspondent should have been called, as far as we can gather from his statement. The coroner has discretion in the selection of medical witnesses in such cases. But it is reasonable to call the practitioner who was sent for and saw the case first. We blame the coroner rather than the police-surgeon.

"SPIRIT WRITING."

To the Editors of THE LANCET.

SIRS,—The paragraph entitled "Spirit Writing in the Fifteenth Century" in your issue of the 2nd inst. induces me to think that you may find the following notice interesting.

In a work entitled "Introductio in Chaldaicum Linguam, &c.," by Theseus Ambrosius, 1539, fol. 212 b, is given the form of conjuration by which Ludovicus Spoletanus invoked the devil to answer clearly and intelligibly a certain question about treasure and where it was to be found. Hardly had the magician laid down his pen when it was taken up into the air, and certain characters were swiftly written on the same paper—"Scribentis vero manum nullus comprehendere poterat." The author states that this was told him by one who was present, and who, moreover, left him the actual archetype, a facsimile of which he gives. Unfortunately, it was not clear and intelligible, and threw no light on the question. I believe the Bodleian Library has a copy of the book, in which the page with the devil's autograph has been pasted over, doubtless as something uncanny.

I am, Sirs, yours faithfully,

Jan. 7th, 1892. T. K. A.

INFLUENZA OR EPIDEMIC COLD.

WE are indebted to a correspondent for the following extract from the *European Magazine* of December, 1813:—

"Influenza or epidemic cold. Such is the term given by medical gentlemen to the disorder now so prevalent in this country—sometimes fatal in its results among children. 1st. Its general symptoms are rigor, or shivering, as in an ague, intense sneezing, running at the eyes and nose, hoarseness of voice, pains in the head, chest, and limbs, oppression on the lungs, and astonishingly rapid respiration at night, with intermittent fever and spasmodic affections during sleep. 2nd. Its certain cure is effected by a gentle emetic of ipecacuanha, frequently aided by small cups of some warm tea or plain water, and a dose of strong infusion of senna on the following day. An ounce of manna dissolved in half a pint of spring water may be taken in a tablespoonful at one time whenever the cough is troublesome. 3rd. The diet should be roasted apples, broths, barley-water, sago, tapioca, or weak gruel. 4th. The clothing warm, but not heavy. Flannel underdresses are highly beneficial; a flannel shift at night has proved essentially useful also. A slight coal fire in the nursery and in the bedroom is indispensable—not to heat, but to dry the air of the chamber."

Dr. Barrs.—We know of no trustworthy work on the subject.

KING'S COLLEGE.

WE are desired by the Dean of the Medical School to ask any old students who may receive applications for pecuniary assistance to communicate with him.

Misnomer.—Our correspondent need scarcely send either a written or lithographed letter on the subject. It will suffice to explain to his friends that he is not responsible for the description, and to correct the same for next year. It would be hard to blame medical men for what appears in local directories.

Lex.—The reasonable fee per visit would be one guinea.

ERRATUM.—The name of the writer of the short paper on p. 86 of our last issue is Richard Lake, F.R.C.S., not *Robert* Lake.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Auld, Glasgow; Dr. Austin; Dr. Armstrong, Liverpool; Messrs. Allen and Hanburys, London; Mr. J. G. Barford, Wokingham; Messrs Back and Co., Bishopsgate; Mr. G. S. Bigg, London; Messrs. Bell and Son, London; Mr. Birchall, Liverpool; Mr. Burgoyne; Mr. Bamster, Darwen; M. Berthier, Paris; Dr. Barr, Liverpool; Dr. E. Blake, London; Dr. Blanc, Cannes; Dr. Barrs, Leeds; Dr. Boyd, Dublin; Mr. Brook, Swansea; Mr. Claxton, Bournemouth; Rev. Mr. Cole, Maldon; Dr. Chambers, Calcutta; Mr. Clark, London; Mr. Coghill, Birmingham; Mr. Crerar, Maryport; Mr. Clark, Seaham; Dr. Coles, Croydon; Messrs. Clark, Wolverhampton; Messrs. Capper and Newton, London; Mr. Churchill, Cumberland; Mr. David, Rhondda Valley; Dr. Dukes, Rugby; Mr. A. Doran, London; Messrs. Dawson and Sons, London; Dr. Drummond, Bristol; Mr. Edmunds, London; Mr. A. G. Field; Mr. Foley, co. Galway; Mr. Ferguson, Camdentown; Mr. Foley, Wombwell; Mr. Givens, Idaho, U.S.A.; Dr. W. T. Gairdner, Glasgow; Dr. Gappy, Falmouth; Mr. Graham, Madeira; Mr. Grun, Putney; Dr. Hellier, Leeds; Dr. Haig, London; Mr. L. Humphry, Cambridge; Mr. Hodgson, Bloomsbury; Dr. Horrocks, London; Dr. Holman, Reigate; Dr. Howard, Oldham; Mr. Hensley, Jersey; Dr. Haviland, Douglas; Mr. Hicks, London; Dr. Halliburton, London; Mr. Jessett, London; Mr. Jessop, Leeds; Mr. A. O. Jones, Harrogate; Mr. W. H. Knight, Nottingham; Mr. C. G. Lee, Liverpool; Mr. H. Lane, Bath; Mr. Langston, London; Mr. Linklater, London; Mr. Lawrence-Hamilton, London; Mr. Mackenzie, Broughty Ferry; Dr. Molloy, Blackpool; Mr. Maudsley; Messrs. M'Geachy and Co., Glasgow; Dr. MacDonald, Washington; Messrs. McFarlan and Co., London; Mr. Macaskie, Northumberland; Mr. MacCulloch, Guernsey; Dr. H. Menzies, London; Mr. Marriott, London; Mr. J. L. Moore, Welshpool; Mr. Mansell Moullin, London; Dr. Magennis, Lurgan; Mrs. Nash, London; Mr. E. Owen, London; Messrs. Orridge and Co., London; Dr. Parkinson, Liverpool; Dr. Phillips, Virginia Water; Mrs. Pringle, London; Dr. L. Phillips, Birmingham; Dr. Inglis Parsons, London; Dr. Pye-Smith, London; Messrs. Reynolds and Branson, Leeds; Dr. Robertson, Newcastle-on-Tyne; Mr. F. de Rause, Paris; Mr. T. A. Richardson, Croydon; Messrs. Richardson and Co., Leicester; Mr. Russell, Liverpool; Mr. A. Roche, Dublin; Dr. Ridge, Enfield; Mr. Stillliard, Birmingham; Messrs. Street and Co., London; Mr. Spink, London; Mr. Summer, Liverpool; Mr. J. C. Swift, London; Dr. A. Smart, Edinburgh; Dr. Stearnes, Hartford, U.S.A.; Mrs. Scott, Brighton; Dr. J. E. Sinclair, London; Mr. F. T. Simson, London; Dr. C. Smith, Glasgow; Signor Tempestini, Montecatini; Dr. S. J. Taylor, Norwich; Dr. Tyson, Folkestone; Dr. Dawson Turner, Edinburgh; Mr. Thin, Edinburgh; Mr. Tate, Nottingham; Mr. W. H. White, London; Mr. Wright, Stafford; Messrs. Waterlow and Sons, London; Mr. W. F. Watts, Dewsbury; Mr. C. J. B. Wallis, London; Mr. Woodland, London; Dr. Whitla, Belfast; An Old Retired Surgeon; Scrutator; T. K. A.; J. W. F.; The Clerk, Salford Union; Purchaser; Misnomer; Etiquette; Hon. Secretary, Victoria Infirmary, Northwich; Doctor, London; Secretary, East London Hospital, Stockwell; G. F., London; Secretary, Royal Portsmouth Hospital; Rotunda, London; L.R.C.P., London; Publisher, *British and Colonial Druggist*, London; Alpha, London; Secretary, Halifax Infirmary; Secretary, Royal Infirmary, Manchester; W.; Aspinall's Enamel Co., New-cross; W. B., Bridgwater; Partner, London; Sanitas Co., London; Secretary, Ancoats Hospital, Manchester.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Mygind, Denmark; Mr. Hannah, Ashton-in-Makerfield; Messrs. Margrave Bros., Llanelly; Mrs. Tyte, Minchinhampton; Mr. Pizzala, Hatton Garden; Mr. Roberts, Ludlow; Mr. Mason, Hull; Mr. Ellis, Bishop Auckland; Mr. Gilbert, Berlin; Dr. Jones, Ruabon; Dr. Adam, West Malling; Mr. Mainwaring, Kensington; Mr. Kirkham, Downham Market; Mr. Read, Bedford; Mr. Corby, Paris; Messrs. Rowntree and Co., York; Mr. Meacham, Manchester; Mr. Greenwood, Kirkby Stephen; Dr. Mongall, Glasgow; Mr. Cleveland; Messrs. Salamon and Co., Rainham; Miss Luttinau, Holloway; Mr. Williams, Market Drayton; Dr. Davies, London; Mr. Menier, London; Mr. Bourke, Earl's Court; Mr. Kemp, Castleford; Mr. Lucas, Burwell; Mr. Tredennick, Salop; Mr. Ross, Guisboru'; Mr. Jenkins, Cardiff; Mr. Childs, Weymouth; Mr. Coupland, Guiseley; Mr. Jamieson, Colne; Mr. Collins, London; Mrs. Griffiths, Oswestry; Mr. Beddoe, Hereford; Mr. Roden, co. Leitrim; Mr. Garnett, Windermere; Dr. Gondoux, Villeneuve; Mr. Norman, Criccieth; Mr. Ramsdale, Patricroft; Dr. Appleton, Cornwall; Mr. Morton, Glasgow; Dr. Sellers, Rochdale; Mr. Winter, Norfolk; Mr. Macintyre, Glasgow; Miss Candy, Brixton; Mr. Drake, Launceston; Mr. Stevenson, Tientsin; Mr. Pilbeam; Mr. Ferguson, Beamish; Dr. Fraenkel, Baden; Mr. Forward, Ledbury; Mr. Moore, Folkestone; Dr. McDowan, Manchester; Mr. Halford, sen., Upper Tollington-park; Mr. Heywood, Manchester; Messrs. Hunter and Gordon, Aberdeen; Mr. Goodman, Taunton; Messrs. Greenberg and Co., London; Dr. Simpson, Islington; Professor Buchanan, Glasgow; Mr. Griffiths, Blayney; Miss Cushney, Cobham; Mr. Finlay, Longford; Mr. Johnston, Canada; Dr. Fowler, Coventry; Mr. Connop, Reading; Dr. Scott, Bewdley; Mr. Agnew, Lurgan; Mr. Bourne, Brighton; Vernon, Sheffield; M.R.C.S., London; Graduate, South Hackney; Medico, London; T. F., Oldham; Sanitas, London; Lady Superintendent, Manchester; Assistant, London; Lex; Brutus, New Cross; Homo; Manager, National Provincial Bank, Portsea; Bona Fides, London; Gabriel, Nice; L., Brecon; Secretary, Loughborough District General Hospital; Assistant, Homerton; Anderson's College Medical School, Glasgow; T. E. H., London; S. B., London; Class Rooms, Edinburgh; M.D., Sheffield; A. B., Oxford; Jeyes' Sanitary Compound Co., London; Surgeon, Devon; Miss B. T. W., Tunbridge Wells; Felixstowe, London; R., Leeds; Secretary, Wolverhampton Hospital; R., Abergele; Ego, London; F. L., London; M.D., Oldham; Medicus, Woodford; Surgeon, London.

NEWSPAPERS.—*Phrenological Journal, Natural Food, Leicester Daily Post, Nottingham Evening News, East Anglian Times, Sidcup Times, Manchester Courier, Western Daily Press, Sheffield Independent, Dundee Advertiser, Bradford Observer, Western Daily Mercury, Eastern Morning News (Hull), Guy's Hospital Gazette, National Bulletin, Le Petit Journal (Paris), Melbourne Argus, Folkestone Herald, Huddersfield Examiner, Derbyshire Advertiser, Sussex Advertiser, North Birmingham News, Leeds Mercury, &c.*, have been received.

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